# 8000 Marine Fire Fighting and Salvage

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Sector SF Section 8000-ii October 1, 2008

#### 8100 Marine Firefighting

Refer to Coast Guard Sector San Francisco Marine Fire Fighting Contingency Plan. This document is published as a stand alone document under a separate cover.

#### 8200 Potential Places of Refuge

#### 8210 Purpose and Scope

In accordance with Regional Response Team Region 9 (RRT9) Guidelines for Places of Refuge Decision-Making and COMDTINST 16451.9, this Potential Places of Refuge (PPOR) section provides information/quidance for both an effective and efficient response to requests from ships in need of assistance and seeking a place of refuge. The objective of this section is to identify docking, anchoring, mooring, and/or grounding locations that may be selected as Potential Places of Refuge and to provide decision-making tools in order to enhance the overall effectiveness of the response process. While information on possible sites is pre-inventoried, this does not imply that any of these sites will be the location of choice in a future event. Decision-makers must address both environmental and operational issues when determining where to direct a stricken vessel. The U.S. Coast Guard Captain of the Port (USCG COTP), San Francisco, has jurisdiction over approving a PPOR site for a vessel in distress. The COTP will confer with other federal, state, and local officials when deciding where and when to move a stricken vessel. Selection of a Place of Refuge by the COTP in consultation with other agencies and stakeholders will always be made on a case-by-case basis. Prior coordination and identification of PPOR sites significantly enhances the decision-making process and facilitates the overall response operation. Taking these actions helps prevent or minimize potential adverse effects to the vessel, the public, environment, and resource users.

In coordination with the State of California and RRT9, workgroups were established to provide the following: A decision-making process to assist USCG COTP in determining whether a vessel needs to be moved to a place of refuge, which place of refuge to use, and a framework for developing pre-incident information on PPOR sites for inclusion in the appropriate sub-area contingency plans.

Keeping in mind that there is no perfect docking or anchoring site for all vessels and all situations, the ACP1, ACP2, and ACP3 sub-area committees convened and developed an approach to pre-survey possible PPOR sites, not pre-determine them. The data gathered was streamlined and incorporated into a California statewide database. A hard copy of this data is contained within this section as pre-incident summaries. These pre-incident summaries provide specific information for PPOR sites within the respective areas of responsibility (AOR) and identify the advantages and consequences in the use of each potential site. Pre-identified PPOR sites will be shown on an area index chart. The pre-incident summaries, the PPOR charts and/or the TAP models (where applicable), contain specific geographic and navigational data in addition to information about concerns for the potential impacts on human health and safety and natural resources, and economic consequences for all options a distressed vessel may have to mitigate their situation. Collectively these serve as a job aid designed for use during an incident.

Refer to Chapter 4, Section 4900 of this ACP for further guidance.

Additional guidance and/or job aids which may be used in the PPOR decision making process include:

COMDTINST 16451.9, Coast Guard Places of Refuge Policy http://www.uscg.mil/directives/ci/16000-16999/CI 16451 9.pdf

RRT9 Guidelines for Places of Refuge Decision-Making Appendix XXVI http://www.dfg.ca.gov/ospr/response/acp/marine/2005RCP/rcp 2005 index.html

The process for identification of additional geographic-specific PPOR sites within the USCG San Francisco COTP zone may be identified at a future date. Future selection and designation of PPOR sites shall be in accordance with stated policy and guidance.

#### 8220 Definitions

Deep Draft – Vessel having a draft between 25ft – 60ft.

<u>Environmental Sensitivity Index (ESI) Maps</u> – NOAA and CDFG-OSPR resource that provide a concise summary of coastal resources that are at risk if an oil spill occurs nearby. Examples of at-risk resources include biological resources (such as birds and shellfish beds), sensitive shorelines (such as marshes and tidal flats), and human-use resources (such as public beaches and parks).

When an oil spill occurs, ESI maps can help responders meet one of the main response objectives: reducing the environmental consequences of the spill and the cleanup efforts. Additionally, ESI maps can be used by planners--before a spill happens--to identify vulnerable locations, establish protection priorities, and identify cleanup strategies.

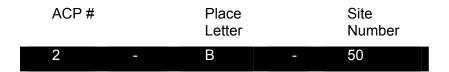
<u>Place</u> – An area that is delineated by geographic locale, jurisdictional boundaries, environmental considerations, controlling authorities, or other such methodology that groups or links a site or many sites. A place may also be a site, where the place and site are the same and no other sites are designated within the place.

<u>Place/Site Identification</u> – The place identification number is composed of the ACP number, place letter designator, and two digit site number each separated by a hyphen that is assigned to a pre-incident place/site survey.

<u>"Potential Place(s) of Refuge" (PPOR)</u> - Is defined as a location where a vessel needing assistance can be temporarily moved to, and where actions can then be taken to stabilize the vessel, protect human life, reduce a hazard to navigation, and/or protect sensitive natural resources and other uses of the area. A place of refuge may include constructed harbors, ports, docks, anchorages, a natural embayment, potential grounding sites, or offshore waters.

<u>Pre-Incident Summary</u> – Site specific summary which contains detailed geographic and navigational data in addition to information about concerns for the potential impacts on human health and safety, natural resources, and economic consequences.

Site – A subdivision of a place that is a more specific location that the place itself.



<u>TAP II Model</u> - The Trajectory Analysis Planner (TAP) is a statistically-valid planning tool developed by NOAA's oil spill trajectory modelers to help emergency planners understand how oil spilled from different locations will likely move and impact shorelines during different seasons. In California, TAP models only exist for San Francisco and San Diego Bays. In each version, TAP draws on a database of 1,000's of trajectories from computer-simulated oil spills from 100's of potential release locations. The model predicts how an oil spill will spread and move, based on the following bay-specific parameters: bathymetry and shoreline configuration, including channels and bays; tidal and non-tidal currents; historic, seasonal wind patterns; shoreline characteristics that determine beaching and re-floating of oil.

Data from these computer-simulated oil spills are then compiled to generate statistics for where, when, and how much oil impacts different segments of shoreline. These statistics are graphically represented to help emergency planners determine which shorelines are likely to be threatened by a spill originating from a given location.

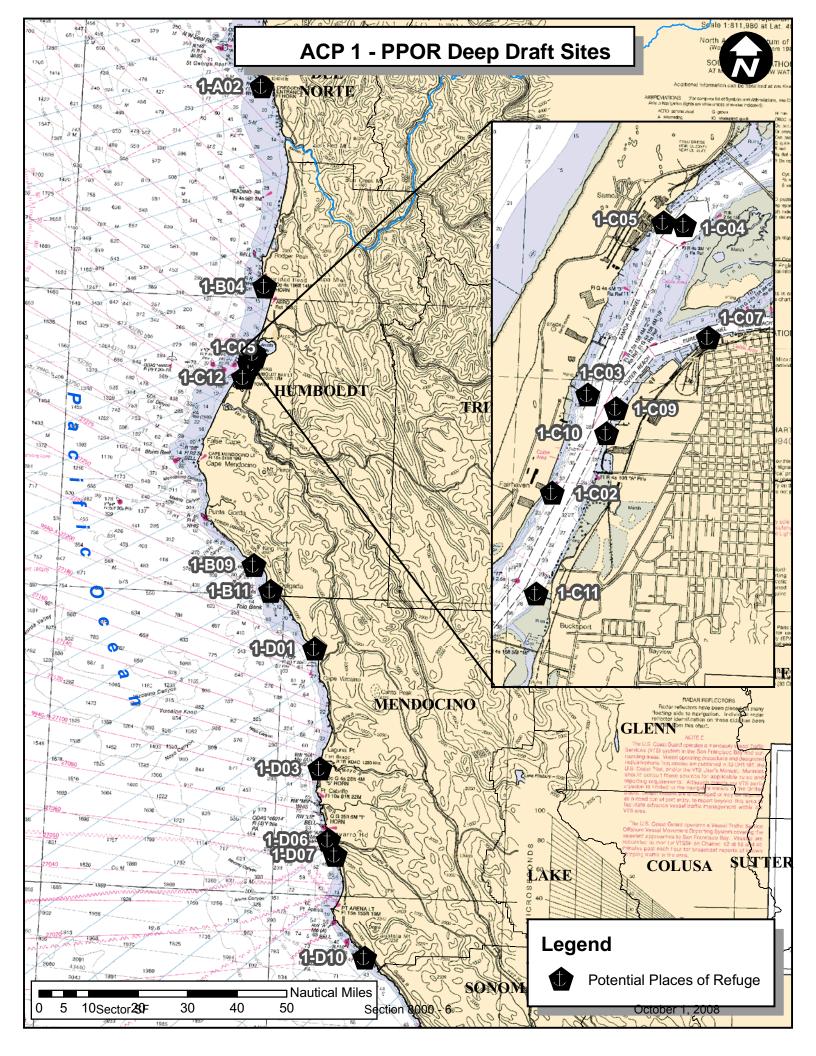
# 8230 ACP 1 – North Coast Area Committee PPOR

# 8231 Potential Places of Refuge Site Index

				Latitude/Lo	ongitude
Site #	Place Name	Site Name	Co.	N	W
1-A02	Cresent City Outer Anchorage	Off Red #2 Whistle Buoy	Del Norte	41 43.000	124 11.803
1-B04	Trinidad Bay	Trinidad Bay- Offshore Anchorage	Humboldt	41 02.608	124 08.673
1-B09	Humboldt County	Delgada Canyon	Humboldt	40 06.162	124 08.327
1-B11	Humboldt County	Shelter Cove	Humboldt	40 01.000	124 03.600
1-C02	Humboldt Bay	Fairhaven Terminal	Humboldt	40 47.308	124 11.683
1-C03	Humboldt Bay	Simpson Chip Export Dock/ North Coast Export Dock	Humboldt	40 47.917	124 11.433
1-C04	Humboldt Bay	Redwood Marine Terminal Berth 1/ LP Dock	Humboldt	40.48.993	124 10.883
1-C05	Humboldt Bay	Samoa Turning Basin	Humboldt	40 48.977	124 10.717
1-C07	Humboldt Bay	Commercial Street Dock	Humboldt	40 48.287	124 10.483
1-C09	Humboldt Bay	Schneider Dock	Humboldt	40 47.842	124 11.200
1-C10	Humboldt Bay	Sierra Pacific/14th Street	Humboldt	40 47.687	124 11.267
1-C11	Humboldt Bay	Chevron	Humboldt	40 46.687	124 11.777
1-C12	Humboldt Bay	Fields Landing - Humboldt Bay Forest Products	Humboldt	40 43.960	124 13.150
1-D01	Mendocino County	Usal Beach	Mendocino	39 49.811	123 51.383
1-D03	Mendocino County	Fort Bragg-Noyo Bay	Mendocino	39 25.676	123 48.781
1-D06	Mendocino County	Navarro Head	Mendocino	39 11.326	123 45.795
1-D07	Mendocino County	ndocino Cuffey's Cove		39 08.356	123 43.908
1-D10	Mendocino County	Haven's Anchorage	Mendocino	38 47.830	123 35.230

# 8232 Potential Places of Refuge Chart/Pre-Incident Summary Sheets

This section contains North Coast Places of Refuge Charts and Pre-Incident Summary Sheets.



# NORTHERN CALIFORNIA

# SHORELINE HABITAT RANKINGS

- 1A EXPOSED ROCKY CLIFFS
  - 1B EXPOSED SEAWALL
  - 1C EXPOSED ROCKY CLIFFS WITH **BOULDER TALUS BASE**
- WAVE CUT ROCKY PLATFORMS
- FINE- TO MEDIUM-GRAINED SAND BEACHES
- COARSE-GRAINED SAND TO GRANULE BEACHES
- MIXED SAND AND GRAVEL BEACHES
- **GRAVEL BEACHES**
- 6B RIPRAP
- **EXPOSED TIDAL FLATS**
- 8A SHELTERED ROCKY SHORES
- 8B SHELTERED MAN-MADE STRUCTURES
- SHELTERED TIDAL FLATS
- 10A SALT MARSHES

# **HUMAN-USE FEATURES**

**ACCESS POINT** 

**AIRPORT** 

AQUACULTURE

ARCHAEOLOGICAL SITE

**BOAT RAMP** 

COAST GUARD

**COMMERCIAL FISHING** 

HISTORICAL SITE

HOIST

MARINA

**MARINE SANCTUARY** 

NATIONAL PARK

**STATE PARK** 

RECREATIONAL FISHING AND BOATING

RECREATIONAL BEACH

SUBSISTENCE AREA

VILLAGE

WATER INTAKE

WILDLIFE REFUGE

ID NUMBER

PARK BOUNDARY

# SENSITIVE BIOLOGICAL RESOURCES

# **BIRDS**

- **ALCIDS & PELAGIC BIRDS**
- **DIVING BIRDS**
- **GULLS & TERNS**
- **RAPTORS**
- SHOREBIRDS
- **WADING BIRDS**
- WATERFOWL
- **NESTING SITES**

# **MAMMALS**

- **DOLPHINS**
- MUSTELIDS & RODENTS
- SEA OTTERS
- **SEALS & SEA LIONS**
- WHALES

# SHELLFISH

- **BIVALVES**
- **ECHINODERMS**

**CRABS** 

- **GASTROPODS & ABALONE**
- LOBSTERS
  - **SHRIMP**
  - SQUID

**FISH** 

**FISH** 

**PLANTS** 

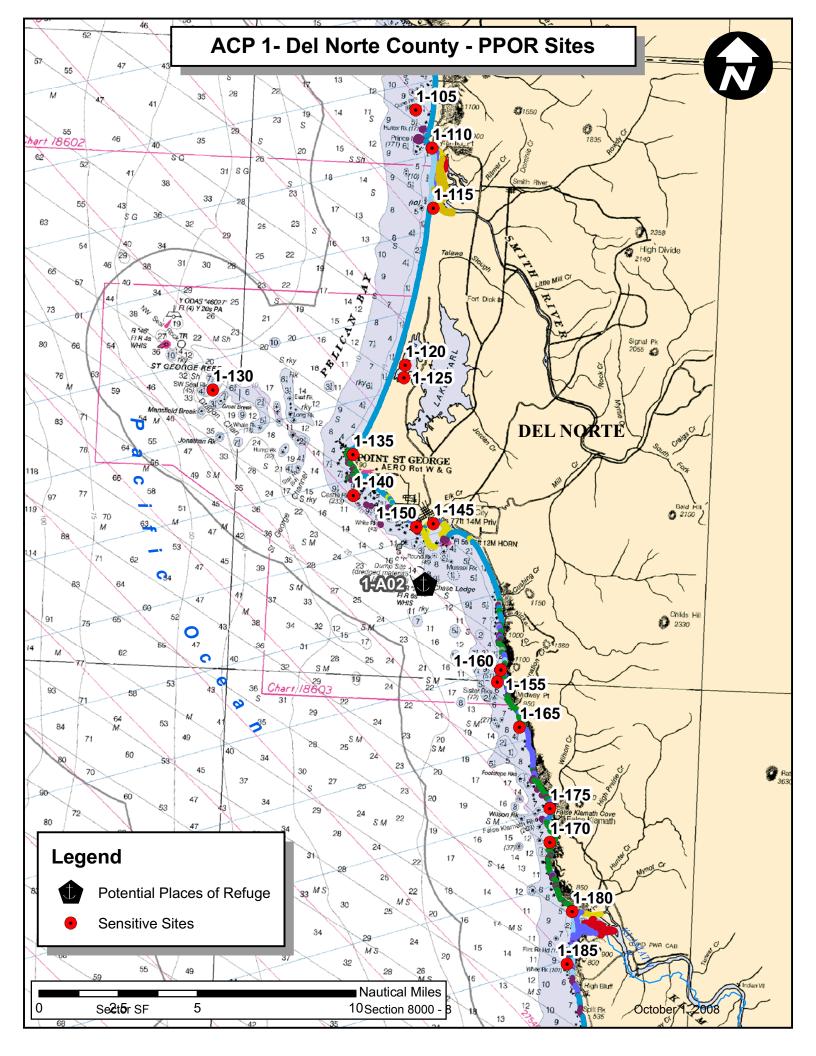
**KELP & SEAGRASSES** 

TERRESTRIAL PLANTS

**MULTI-GROUP** 

THREATENED/ENDANGERED

123 ID NUMBER



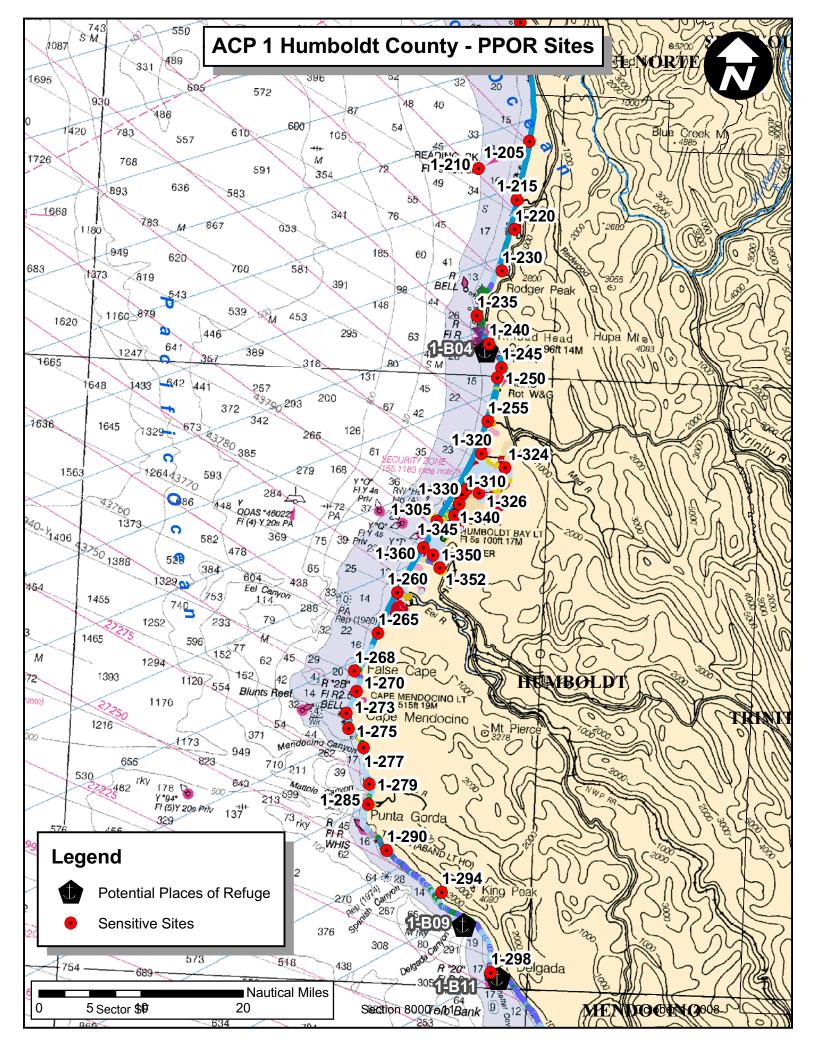
#### 1-A02 PPOR Pre-Incident Information Summary for Cresent City Outer Anchorage: Off Red # 2 Whistle Buoy Latitude: 414300 124.2 **Longitude**: 124118 Type: County: Del Norte Anchorage **Location Description:** Natural Resource Concerns and Issues for this Place / Site Threatened and Endangered Species (TAES): Critical Habitat for TAES: California brown pelican (FPD, SE), marbled murrelet (FT,SE) and stellar sea lion (FT) in area. Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: Offshore waters important forage areas for man bird species. Grey whales St. Georges reef to the north is an important fisheries area. seasonally common in area. Subsistence-use Species: Critical Habitat for Subsistence Species: Historic and Cultural Resources: **Essential Fish Habitat:** No offshore historic or cultural issues. Prince Isle near the mouth of the Smith Management plans for pelagic finfish, salmon and ground fish all identify this as Essential Fish Habitat. River is culturally important to Native Americans. Commercial Fisheries / Species: Recreational Species and Habitat: Cresent City Harbor has large fleet of commercial fishing vessels for crab. Albacore, salmon, rockfish, lingcod and surf perch are popular seasonal dover sole, thornyhead and sable fish. Rock fish also important to local recreational fisheries. economy. Human Health / Safety Concerns and Economic Issues for this Place / Site Human Health and Safety: Economic Impact on Maritime Commerce and Shipping: Economic Impact on Commercial Fishing and Aquaculture: Economic Impact on Non-maritime Commerce:

#### Stakeholder List for this Place / Site

Economic Impact on Recreational Fishing and Marine Tourism:

Name / Title Organization Phone more details

PPOR Pre-I	ncident Ir	nformati	on Sumr	nary for	Cresen	t City Outer A	Anchorag	ge: Off Red # 2	2 Whistle Buoy	1-A02
Latitude: 414300	124.2	Longitud	e: 124118	124.1967	•	•	`		•	Type:
County: Del Norte	9				•					Anchorage
Characteris	tics and	Tactical	Conside	rations						
Primary Jursidiction	nal Contact:	Cresent 6174 vo	•	or Master 70	7-464-	Marine Fire Fig	hting Resourc	ces:		
Approximate Tug I	Response Time	Knutsor	707-496-0	749 [Ocean	going, 10	kts]				
List of Nearby Env	rironmentally S	ensitive Site	S: ACP 1:	1-105, 1-110	), 1-115, 1	-125, 1-130, 1-13	35, 1-140, <i>1</i>	1-145	Is Contai	inment Possible?
Coast Pilot	and Naviga	ation Cha	rt Informat	ion						
Prevailing Winds	Tidal Range	Bottom Typ	e: Max Wate Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
			18	80						
Specific Sit	e Details									
Site Site Name			Vessel Capac	ities	Site	Capacities and F	acilities			
ID		=	Max Max I Size Lgth I	Max Swing Ro		es, capabilities, and	any other issu	les or concern Conf	tainmentPossiblities:	
Off Red # 2	Whistle Buoy		Оеер							
Site Contact/Lease	ee/Owner:	Cresen	City Harbo	or Master 70	7-464-353	5 fax				



PPOR Pre-Incident Information		rinidad Bay Offshore Anchorage	1-B04
Latitude: 410260 124.14 Longitude:	124086 124.1446		Type:
County: Humboldt			Anchorage
Location Description:			
Natural Resource Concerns ar	nd Issues for this Place / Site		
Threatened and Endangered Species (TAES):		Critical Habitat for TAES:	
California brown pelican (FPD, SE), mar lion (FT) in area	bled murrelet (FT, SE) and stellar sea		
Sensitive Non-protected (Non-TAES) Species:		Critical Habitat for Non-protected (Non-TAES) Species:	
Many non -TAES birds forage in these o offshore rocks for nesting.	ffshore waters and use numerous		
Subsistence-use Species:		Critical Habitat for Subsistence Species:	
Essential Fish Habitat:		Historic and Cultural Resources:	
Management Plans for pelagic finfish, sa as Essential Fish Habitat.	almon and ground fish all identify this	Trinidad head is an important Native American site.	
Commercial Fisheries / Species:		Recreational Species and Habitat:	
There is a small commercial crab fishing of Humboldt Bay to the south.	fleet, but most of the local fleet is out		
Human Health / Safety Concer	ns and Economic Issues for th	is Place / Site	
Human Health and Safety:		Economic Impact on Maritime Commerce and Shipping:	
Economic Impact on Commercial Fishing and Aqu	aculture:	Economic Impact on Non-maritime Commerce:	
Economic Impact on Recreational Fishing and Mar	rine Tourism:	Other Economic Impacts:	
Stakeholder List for this Place	2 / Site		
Name / Title	Organization	Phone more details	
Hamo / Hao	o.gamzadon	Thore downs	

 Sector SF
 Section 8000 - 12
 October 1, 2008

Marine Fire Fighting Resources:

Primary Jursidictional Contact:

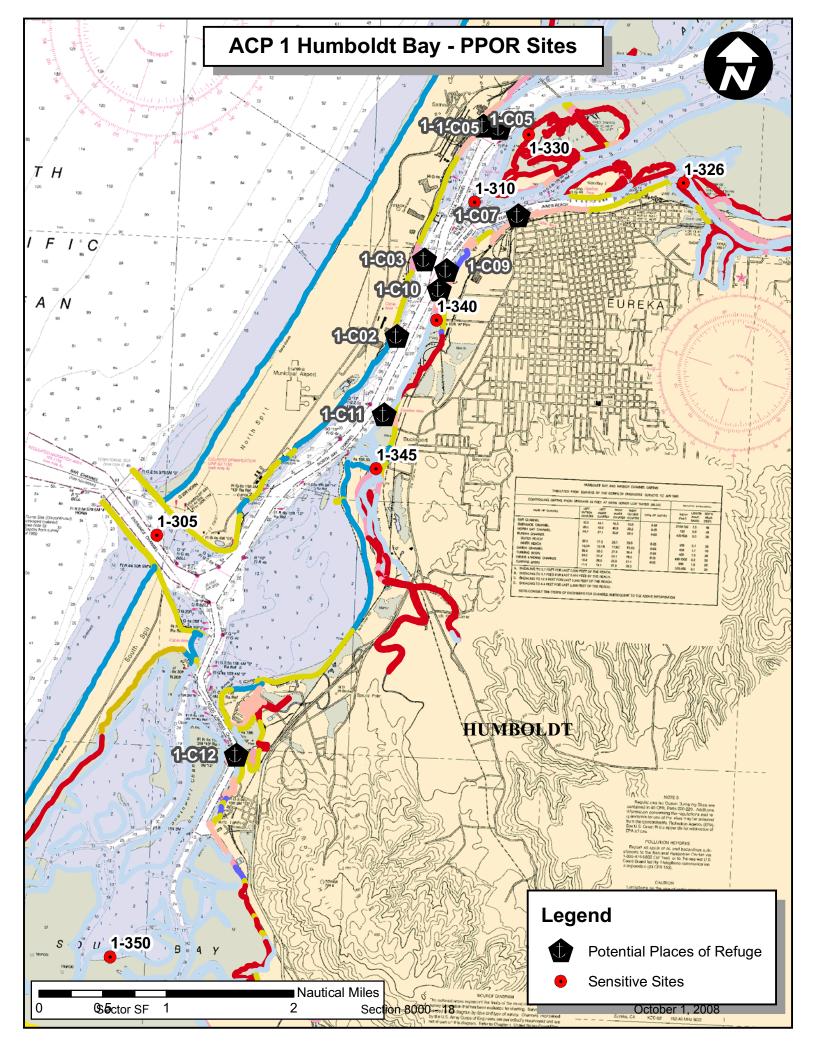
PPOR Pre-Ir	ncident I	nformation	n Summ	ary for	Trinida	d Bay: Trinid	ad Bay C	ffshore Anch	orage	1-B04
Latitude: 410260	124.14			124.1446		•	,		J	Type:
County: Humboldt										Anchorage
Approximate Tug R	esponse Tim	e Knutson 7	07-496-07	49 [Ocean	going, 10k	rts]				
List of Nearby Envir	ronmentally S	Sensitive Sites:	ACP1: 23	0, 235, 240	), 245, 250	0, 255, 305, 310			Is Contai	nment Possible?
Coast Pilot	and Navig	ation Chart I	Informatio	on						
Prevailing Winds	Tidal Range	Bottom Type:	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
			40	34						
Specific Site	e Details									
Site Site Name		Ves	ssel Capaciti	es	Site	Capacities and F	acilities			
ID		Max Siz		Swing Roaft or Dock F		es, capabilities, and	any other issu	es or concern Conta	ainmentPossiblities:	
Trinidad Bay	Offshore An	chorage Dee	ep			te is directly sout of F	Prisoner Rock	and east of		
					Pilot R	lock.				
						w draft vessels (less ad Bay to use docks a )				
Site Contact/Lease	e/Owner:									

### 1-B09 PPOR Pre-Incident Information Summary for Humboldt County: Delgada Canyon 124.14 **Longitude:** 124083 Latitude: 400616 Type: County: Humboldt Anchorage **Location Description:** Natural Resource Concerns and Issues for this Place / Site Threatened and Endangered Species (TAES): Critical Habitat for TAES: California brown pelican (FPD, SE), stellar sea lion (FT) Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: Common murre, surf scoter. Grey whale transit and foraging. Subsistence-use Species: Critical Habitat for Subsistence Species: Essential Fish Habitat: Historic and Cultural Resources: Management plans for pelagic finfish, salmon and ground fish identify this as Essential Fish Habitat. Commercial Fisheries / Species: Recreational Species and Habitat: Nearshore rockfish, salmon and crab Abalone, salmon, crab. Human Health / Safety Concerns and Economic Issues for this Place / Site Human Health and Safety: Economic Impact on Maritime Commerce and Shipping: Economic Impact on Commercial Fishing and Aquaculture: Economic Impact on Non-maritime Commerce: Economic Impact on Recreational Fishing and Marine Tourism: Other Economic Impacts: Stakeholder List for this Place / Site Name / Title Organization Phone more details Characteristics and Tactical Considerations **Primary Jursidictional Contact:** Marine Fire Fighting Resources: Approximate Tug Response Time Knutson 707-496-0749 (ocean-going, 10kts)

PPC	POR Pre-Incident Information Summary for							ldt County:	Delgada C	anyon			1-B09
Latitu	<b>de:</b> 400616	124.14	Longitude	12408	3 12	24.1388		-	_	-			Type:
Count	y: Humbold	t											Anchorage
List of	Nearby Env	rironmentally S	ensitive Sites:	ACP '	: 285	5, 290, 29	4, 298, 40	00				Is Contair	nment Possible?
Co	oast Pilot	and Navig	ation Char	t Inform	atior	1							
Preva	iling Winds	Tidal Range	Bottom Type	: Max W Dep		Min Water Depths	Currents	Sea Conditions	Fog	Shelter Fro Severe Stor	3 - 1 - 1	oroach	Pilot Requirements
					300	180							
Sp	ecific Sit	e Details											
	Site Name		V	essel Cap	acities	;	Site	Capacities and	Facilities				
ID					Max Draf			ies, capabilities, and	any other issu	es or concern	ContainmentPossiblities:		
	Delgada Ca	anyon	D	еер				er slop on north sid					
								oximately 6 miles no noreside access	rth of Point Del	gada			
Site C	ontact/Leas	ee/Owner:								·	·		·

### 1-B11 PPOR Pre-Incident Information Summary for Humboldt County: Shelter Cove 124.06 Longitude: 124036 Latitude: 400100 Type: County: Humboldt Anchorage **Location Description:** Natural Resource Concerns and Issues for this Place / Site Threatened and Endangered Species (TAES): Critical Habitat for TAES: California brown pelican (FPD, SE), stellar sea lion (FT) Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: Common murre, surf scoter. Subsistence-use Species: Critical Habitat for Subsistence Species: Essential Fish Habitat: Historic and Cultural Resources: Management plans for pelagic finfish, salmon and ground fish identify this as Essential Fish Habitat. Commercial Fisheries / Species: Recreational Species and Habitat: Nearshore rockfish, salmon and crab Abalone, salmon, crab Human Health / Safety Concerns and Economic Issues for this Place / Site Human Health and Safety: Economic Impact on Maritime Commerce and Shipping: Economic Impact on Commercial Fishing and Aquaculture: Economic Impact on Non-maritime Commerce: Economic Impact on Recreational Fishing and Marine Tourism: Other Economic Impacts: Stakeholder List for this Place / Site Name / Title Organization Phone more details Characteristics and Tactical Considerations Primary Jursidictional Contact: Marine Fire Fighting Resources: Approximate Tug Response Time Knutson 707-496-0749 [ocean-going, 10kts]

Latitu	OR Pre-lide: 400100 by: Humbold	124.0	nformati 6 Longitud		<b>nary for</b> 124.06	Humbo	ldt County: \$	Shelter C	ove		1-B11 Type: Anchorage
	•	•	Sensitive Sites	7 (01 11.7	285, 290, 29 i <b>on</b>	94, 298, 40	00			Is Conta	inment Possible?
Preva	ailing Winds	Tidal Range	Bottom Typ	Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
Site ID	Site Name	e Details	<b> </b>	/essel Capac			Capacities and les, capabilities, and		ues or concern Con	tainmentPossiblities:	
Site C	Shelter Cov		]	Size Lgth [Deep	Oraft or Dock I	Face	ite approximately .25				



# PPOR Pre-Incident Information Summary for Humboldt Bay: Fairhaven Terminal

1-C02

Type: Dockage

County: Humboldt

Latitude: 404730 124.19 **Longitude**: 124116

# **Location Description:**

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

California bown pelican (FPD, SE), peregrine falcon (F delisted, SCD), stellar sea lion (FT), Coho (FE & FT, ST) and chinook (ESU, ST) salmon, steelhead (FSS) and coastal cutthroat (FT) trouts. Salmon and trout spawning runs August through June, juveniles February through August.

Sensitive Non-protected (Non-TAES) Species:

Occasionally whales offshore typically harbor seals. Black brant and migratory waterbirds, especially shorebirds, occur in fall, winter, and spring, 100,000+ birds use Bay in winter for feeding and resting. Muskrat and beaver use marsh areas.

Subsistence-use Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

**Essential Fish Habitat:** 

Management plans for pelagic finfish, salmon and groundfish identify the ofshore areas as Essential Fish Habitat.

Commercial Fisheries / Species:

Humboldt Bay is home to a large commercial fishing fleet for crab, salmon, rockfish and albacore.

Critical Habitat for TAES:

Critical Habitat for Non-protected (Non-TAES) Species:

In addition to sandy shoreline and extensive mud flat habitat, extensive eel grass beds are exposed during low tide.

Critical Habitat for Subsistence Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Historic and Cultural Resources:

Indian Island is a significant cultural site for Native Americans.

Recreational Species and Habitat:

Albacore, salmon, rockfish, lingcod, surf perch and crab.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Towns bordering Humboldt Bay: Eureka (population 25,000), Arcaa (population 17,000), King Salmon, Fields Landing, Samoa, Manila, Bayside

Economic Impact on Commercial Fishing and Aquaculture:

Humboldt Bay pacific oyster mariculture in north bay. Commercially successful oyster seed production and grow-out operation. Humboldt Bay home to commercial fishing fleet for crab, salmon, rockfish and albacore.

Economic Impact on Recreational Fishing and Marine Tourism:

Albacore, salmon, rockfish, lingcod, surf perch and crab are all popular seasonal offshore recreational fisheries.

Economic Impact on Maritime Commerce and Shipping:

Economy of area based on forest products production (export of raw and finished timber products). One bulk fuel terminal (gasoline and diesel), three fueling facilities. Shipments of petroleum products (gasoline and diesel) received every 4-10 days.

**Economic Impact on Non-maritime Commerce:** 

Tourism in nearby towns of Eureka and Arcata. Eureka is county seat. Arcata is home to CSU Humboldt. CSUH row crews and recreational kayaking in Bay. Main traffic corridor (US Highway 101) on east side of Bay.

PPOR Pre-I Latitude: 404730 County: Humbold	) 124.1				ry for 4.1947	Humbe	oldt Bay: Fairh	aven Tei	rminal		Type: Dockage
Stakehold	ler List fo	or this Plac	ce / Sit	е							
Nam	e / Title				Organi	zation			Phone	more details	
Characteris Primary Jursidictio		Tactical C				'07-443-	Marine Fire Figh	ting Resourc	es:		
,		0801			adionly 7	07 110		ŭ			
Approximate Tug	Response Tim	e Brusco 70	7-498-4	618;	knutson	707-496	-0749				
List of Nearby Env	vironmentally S	Sensitive Sites:	ACP 1:	305	, 310, 32	0, 324, 3	26, 328, 330, 340,	345		Is Conta	inment Possible?
		ation Chart								<u> </u>	
Prevailing Winds	Tidal Range	Bottom Type:	Max Wat Depth	er N	lin Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
		Silt		38							<u> </u>
Specific Sit	e Details										
Site Site Name		Ves	ssel Capa	cities		Site	Capacities and Fa	acilities			
ID			x Max ze Lgth		Swing Ro or Dock F		ties, capabilities, and a	ny other issue	es or concern Con	tainmentPossiblities:	
Fairhaven	Terminal	Dee	ep 950			entra Huml	be mindful of seasonal nce. Local knowledge e coldt Bay Harbor of Saf rt Nov. 2007 (access vi	essential. Refe e Refuge Sim	er to nulation Final		
							hoist at Fields Landing 2); 150 tons, 100'	boat yard (US	S EKA		

#### Latitude: 404791 124.19 **Longitude**: 124114 124.1906

PPOR Pre-Incident Information Summary for Humboldt Bay: Simpson Chip Export Dock/North Coast Export **Dock** 

1-C03

Type: Dockage

County: Humboldt

# **Location Description:**

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

California brown pelican (FPD, SE), peregrine falcon (F delisted, SCD), stellar sea lion (FT), coho (FE & FT, ST) and chinook (ESU, ST) salmon, steelhead trout, (FSS) and coastal cutthroat trout (FT). Salmon and trout spawing runs August through June, juvenile/smolts run February through August.

Sensitive Non-protected (Non-TAES) Species:

Occassionally whales offshore, typically harbor seals. Black brant and migratory waterbirds, especially shorebirds, occur in fall, winter and spring. 100,000+ birds use Bay in winter for feeding and resting. Mustrat and beaver use marsh areas.

Subsistence-use Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

**Essential Fish Habitat:** 

Management plans for pelagic finfish, salmon and ground fish identify this as Essential Fish Habitat.

Commercial Fisheries / Species:

Humboldt Bay is home to a large offshore commercial fishing fleet for crab, salmon, rockfish, and albacore.

Critical Habitat for TAES:

Critical Habitat for Non-protected (Non-TAES) Species:

In addition to sandy shoreline, extensive mudflats and eelgrass beds are exposed during low tides.

Critical Habitat for Subsistence Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Historic and Cultural Resources:

Indian Island is a significant Native American cultural site

Recreational Species and Habitat:

Albacore, salmon, rockfish, lingcod, surf perch and crab.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Towns bordering Humboldt Bay; Eureka (population 25,000), Arcata (population 17,000), King Salmon, Fields Landing, Samoa, Manila, Bayside.

Economic Impact on Commercial Fishing and Aquaculture:

Humboldt Bay pacific oyster mariculture in north bay. Commercially successful oyster seed production and grow-out operation. Humboldt Bay home to commercial fishing fleet for offshore crab, salmon, rockfish, and albacore.

Economic Impact on Recreational Fishing and Marine Tourism:

Albacore, salmon, rockfish, lingcod, surf perch and crab are all popular seasonal offshore recreational fisheries.

Economic Impact on Maritime Commerce and Shipping:

Economy of area based on forest products production (export of raw and finished timber products). One bulk fuel terminal (gasoline and diesel), three fueling facilities. Shipments of petroleum products (gasoline and diesel) received every 4-10 days.

**Economic Impact on Non-maritime Commerce:** 

Tourism in nearby towns of Eureka and Arcata. Eureka is county seat. Arcata is home to CSU Humboldt. CSUH row crews and recreational kayaking in Bay. Main traffic corridor (US Highway 101) in east side of Bay.

Latitu	OR Pre-I ide: 404791 by: Humbold	124.1		tion Summa de: 124114 12		Humbo Dock	ldt Bay: Simp	son Chi <sub>l</sub>	p Export D	ock/North	n Coast Expoi	Type: Dockage
St	akehold	ler List fo	or this F	lace / Site								
	Nam	e / Title			Organiza	ation			Phone	more details		
	aracteris ry Jursidictio			I Considerates contact Port A		7-443-	Marine Fire Fight	ing Resource	es:			
Appro	ximate Tug I	Response Tim	ne Brusco	707-498-4618	Knutson	707-496-	0749					
List of	f Nearby Env	ironmentally S	Sensitive Sit	es: ACP 1: 305	5, 310, 320	), 324, 32	6, 328, 330, 340,	345			Is Contain	ment Possible?
				art Information								
Preva	ailing Winds	Tidal Range	Bottom Ty	/pe: Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storm		itional Approach	Pilot Requirements
				38								✓
S	oecific Sit	e Details										
Site	Site Name			Vessel Capacities		Site	Capacities and Fa	cilities				
ID				Max Max Max Size Lgth Draft	Swing Roo or Dock Fa		es, capabilities, and ar	y other issue	es or concern	ContainmentPo	ossiblities:	
Simpson Chip Export Dock/North Coast Export Dock			Deep 950	1350 Boat hoist at Fields Landing Boatyard (US FLC12); 150 tons, 100'				S EKA				
						entran Humbo	e mindful of seasonal ce. Local knowledge e oldt Bay Harbor of Safe Nov. 2007 (access via	ssential. Ref Refuge Sim	er to nulation Final			

#### Latitude: 404899 124.18 Longitude: 124108

PPOR Pre-Incident Information Summary for Humboldt Bay: Redwood Marine Terminal Berth 1 LP dock

1-C04

Type: Dockage

County: Humboldt

### **Location Description:**

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

California brown pelican (FPD, SE), peregrine falcon (F delisted, SCD), stellar sea lion (FT), coho salmon (FE & FT, ST), chinook salmon (ESU, ST), steelhead trout (FSS), coastal cutthroat trout (FT). Salmon and trout spawing August through June, juvenile/smolts -February though August.

Sensitive Non-protected (Non-TAES) Species:

Occasionally whales offshore, harbor seals typically present. Black brant and migratory waterbirds, especially shorebirds, occur in the fall, winter, and spring, 100,000+ birds use Bay in winter for feeding and resting. Muskrat and beaver use marsh areas.

Subsistence-use Species:

Essential Fish Habitat:

Albacore, rockfish, salmon, lingcod, surf perch and crab

Commercial Fisheries / Species:

Humboldt Bay is home to a large offshore commercial fishing fleet for crab, salmon, rockfish and albacore.

Critical Habitat for TAES:

Critical Habitat for Non-protected (Non-TAES) Species:

In addition to sandy shoreline, extensive mudflats and eelgrass beds are exposed during low tides.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Indian Island is a significant Native American cultural site.

Recreational Species and Habitat:

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Towns bordering Humboldt Bay: Eureka (population 25,000), Arcata (population 17,000), King Salmon, Fields Landing, Samoa, Manila, Bayside.

Economic Impact on Commercial Fishing and Aquaculture:

Humboldt Bay pacific oyster mariculture in north bay. Commercially successful oyster seed production and grow-out operation. Humboldt Bay home to commercial fishing fleet for offshore crab, salmon, rockfish and albacore.

Economic Impact on Recreational Fishing and Marine Tourism:

Albacore, salmon, rockfish, lingcod, surf perch and crab are all popular seasonal offshore recreational fisheries.

Economic Impact on Maritime Commerce and Shipping:

Economy of area based on forest products production (export of raw and finished timber products). One bulk fuel terminal (gasoline and diesel), three fueling facilities. Shipment of petroleum products (gasoline and diesel) received every 4-10 days.

Economic Impact on Non-maritime Commerce:

Tourism in nearby towns of Eureka and Arcata. Eureka is county seat. Arcata is home to CSU Humboldt. CSUH row crews and recreational kayaking in Bay. Main traffic corridor (US Highway 101) on eas side of Bay.

Latitu	OR Pre-I	124.1		tion Summa de: 124108 12	ry for 4.1814	Humbo 	ldt Bay: Redw	ood Ma	rine Termir	nal Berth 1 LP dock	<b>1-C04</b> Type: Dockage
St	akehold	ler List fo	or this F	Place / Site							
	Nam	e / Title		Organization					Phone	more details	
Cha	ıracteris	tics and	Tactica	I Considerat	ions						
	ry Jursidictio			s contact Port A		707-443-	Marine Fire Fight	ing Resourd	ces:		
Appro	ximate Tug I	Response Tin	ne Brusco	707- 498-4618	; Knutso	n 707-496	-0749				
List of	Nearby Env	ironmentally	Sensitive Site	es: ACP 1: 305	5, 310, 32	20, 324, 32	6, 328, 330, 340,	345		Is Cor	ntainment Possible?
				art Information							
Preva	ailing Winds	Tidal Range	Bottom Ty	vpe: Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storm	3	Pilot Requirements
				38							✓
Sp	ecific Sit	e Details									
Site	Site Name			Vessel Capacities		Site	Capacities and Fa	cilities			
ID				Max Max Max Size Lgth Draft		oom Faciliti Face	es, capabilities, and ar	y other issu	es or concern	ContainmentPossiblities:	
Redwood Marine Terminal Berth 1 LP dock			Deep 950	1100 Boat hoist at Fields Landing boatyard (U FLC12); 150 ton, 100'			S EKA				
						entran Humbo	e mindful of seasonal ce. Local knowledge e oldt Bay Harbor of Safe Nov 2007 (access via	ssential. Ref Refuge Sir	fer to mulation Final		

#### PPOR Pre-Incident Information Summary for Humboldt Bay: Samoa Turning Basin Latitude: 404897 124.18 Longitude: 124107

11-C05

Type: Anchorage

County: Humboldt

**Location Description:** 

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

California brown pelican (FPD), SE), peregrine falcon (F delisted, SCO), stellar sea lion (FT), coho salmon (FE & FT, ST), chinook salmon (ESU, ST), steelehead trout (FSS), coastal cutthroat troat (FT). Salmon and trout spawning August through June, juvenile/smolts February through August.

Sensitive Non-protected (Non-TAES) Species:

Occasionally whales offshore, harbor seals typically present. Black brant and migratory waterbirds -- especially shorebirds -- occur in fall, winter and spring. 100,000+ birds use Bay in winter for feeding and resting. Muskrat and beaver use marsh areas.

Subsistence-use Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Essential Fish Habitat:

Albacore, rockfish, salmon, lingcod, surf perch and crab.

Commercial Fisheries / Species:

Humboldt Bay is home to a large offshore commercial fishing fleet for crab, salmon, rockfish, and albacore.

Critical Habitat for TAES:

Critical Habitat for Non-protected (Non-TAES) Species:

In addition to sandy shoreline, extensive mudflats and eelgrass beds are exposed during tides.

Critical Habitat for Subsistence Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Historic and Cultural Resources:

Indian Island is a significant Native American cultural site.

Recreational Species and Habitat:

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Towns bordering Humboldt Bay; Eureka (population 25,000), Arcata (population 17,000), King Salmon, Fields Landing, Samoa, Manila, Bayside.

Economic Impact on Commercial Fishing and Aquaculture:

Humboldt Bay pacific oyster mariculture in north bay. Commercially successful oyster seed production and grow-out operation. Humboldt Bay home to commercial fishing fleet for offshore crab, salmon, rockfish, and albacore.

Economic Impact on Recreational Fishing and Marine Tourism:

Albacore, salmon, rockfish, lingcod, surf perch, and crab are all popular seasonal offshore recreational fisheries.

Economic Impact on Maritime Commerce and Shipping:

Economy of area based on forest products production (export of raw finished timber products). One bulk fuel terminal (gasoline and diesel), three fueling facilities. Shipment of petroleum products (gasoline and diesel) received every 4 -10 davs.

Economic Impact on Non-maritime Commerce:

Tourism in nearby towns of Eureka and Arcata. Eureka is county seat. Arcata is home to CSU Humboldt. CSUH row crews and recreational kayaking in Bay. Main traffic corridor (US Highway 101) on east side of Bay.

PPC	R Pre-I	ncident l	Informatio	n Summa	ary for	Humbo	ldt Bay: Sam	oa Turnii	ng Basin		1-C05
	<b>de:</b> 404897 y: Humbold		8 Longitude:	124107 1	24.1786		-		_		Type: Anchorage
St	akehold	er List fo	or this Plac	ce / Site							
	Name	e / Title			Organi	zation			Phone	more details	
			Tactical C				¬				
Prima	y Jursidictio	nal Contact:	Always co 0801	ntact Port	Authority 7	707-443-	Marine Fire Figl	iting Resourc	es:		
Appro	ximate Tug F	Response Tim	ne Brusco 70	7-498-461	3; Knutsor	707-496-	0749				
List of	Nearby Env	ironmentally S	Sensitive Sites:	ACP 1: 30	5, 310, 32	0, 324, 32	6, 328, 330, 340	345		Is Con	tainment Possible?
			ation Chart							_	
Preva	iling Winds	Tidal Range	Bottom Type:	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
				38							<b>✓</b>
Sp	ecific Sit	e Details									
Site	Site Name		Ve	ssel Capacitie	s	Site	Capacities and F	acilities			
ID			Ma Si:		x Swing Ro	om Faciliti	es, capabilities, and a		es or concern Co	ntainmentPossiblities:	
	Samoa Turi	ning Basin	Dee	ep 950			oist at Fields Landing 2); 150 ton, 100'	boatyard (US	SEKA		

#### PPOR Pre-Incident Information Summary for Humboldt Bay: Commercial Street Dock Latitude: 404828 124.17 Longitude: 124104

1-C07

Type:

Dockage

# **Location Description:**

County: Humboldt

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

California brown pelican (FPD, SE), peregrine falcon (F delisted, SCD), stellar sea lion (FT), coho salmon (FE & FT, ST), chinook salmon (ESU, ST), steelhead trout (FSS), coastal cutthroat trout (FT). Salmon and trout spawning August through June, juvenile/smolts February through August.

Sensitive Non-protected (Non-TAES) Species:

Occassionally whales offshore, harbor seals typically present. Black brant and migratory waterbirds -- espectially shorebirds -- occur in fall, winter, and spring, 100,000+ birds use Bay in winter for feeding and resting. Muskrat and beaver use marsh areas.

Subsistence-use Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Essential Fish Habitat:

Albacore, rockfish, salmon, lingcod, surf perch and crab.

Commercial Fisheries / Species:

Humboldt Bay is home to a large offshore commercial fishing fleet for crab, salmon, rockfish, and albacore.

Critical Habitat for TAES:

Critical Habitat for Non-protected (Non-TAES) Species:

In addition to sandy shoreline, extensive mudflats and eelgrass beds are exposed during low tides.

Critical Habitat for Subsistence Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Historic and Cultural Resources:

Indian Island is a significant Native American cultural site.

Recreational Species and Habitat:

#### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Towns bordering Humboldt Bay; Eureka (population 25,000), Arcata (17,000), King Salmon, Fields Landing, Samoa, Manila, Bayside.

Economic Impact on Commercial Fishing and Aquaculture:

Humboldt Bay pacific oyster mariculture in north bay. Commercially successful oyster seed production and grow-out operation. Humboldt Bay home to commercial fishing fleet for offshore crab, salmon, rockfish and albacore.

Economic Impact on Recreational Fishing and Marine Tourism:

Albacore, salmon, rockfish, lingcod, surf perch and crab are all seasonal offshore recreational fisheries.

Economic Impact on Maritime Commerce and Shipping:

Economy of area based on forest products production (export of raw and finished timber products). One bulk fuel terminal (gasoline and diesel), three fueling facilities. Shipment of petroleum products (gasolie and diesel) received every 4-10 days.

Economic Impact on Non-maritime Commerce:

Tourism in nearby cities of Eureka and Arcata. Eureka is county seat. Arcata is home to CSU Humboldt. CSUH row crews recreational kayaking in Bay. Main traffic corridor (US Highway 101) on east side of Bay.

PPOR Pre-I	ncident	Informati	on Su	ımma	rv for	Humbo	ldt Bay: Con	nmercial :	Street Doo	:k		1-C07
_atitude: 404828 County: Humbold	3 124.1				24.1747		iai zayi co					Type: Dockage
Stakehold	ler List fo	or this Pl	ace / S	Site								
Nam	e / Title				Organiz	zation			Phone	more details		
Charastoria	ution and	Tactical	Cons	idoro	liana							
Characteris Primary Jursidiction					uthority 7	07-443-	Marine Fire Fi	hting Resourc	es:			
Approximate Tug I	Response Tin	ne Brusco	707-498	8-4618	; Knutson	707-496-	0749					
ist of Nearby Env	vironmentally	Sensitive Sites	:								Is Containm	ent Possible?
Coast Pilot	and Navig	gation Cha	t Infor	matior	1							
Prevailing Winds	Tidal Range	Bottom Typ		epth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From	. 3	roach	Pilot Requirements
Specific Sit	te Details			26								✓
Site Name		`	/essel Ca	apacities		Site	Capacities and	Facilities				
ID			Max Ma Size Lg	gth Draf		ace	es, capabilities, and			ContainmentPossiblities:	_	
Commercia	I Street Dock		eep 400	0			oist at Fields Landin	g boatyard (US	SEKA			

# PPOR Pre-Incident Information Summary for Humboldt Bay: Schneider Dock

1-C09

Type: Dockage

Latitude: 404784 County: Humboldt

**Location Description:** 

#### Natural Resource Concerns and Issues for this Place / Site

124.19 Longitude: 124112 124.1867

Threatened and Endangered Species (TAES):

California brown pelican (FPD, SE), peregrine falcon (F delisted, SCD), stellar sea lion (FT), coho salmon (FE & FT, ST), chinook salmon (ESU, ST), steelhead trout (FSS), coastal cutthroat trout (FT). Salmon and trout spawning August through June, juvenile/smolts February through August.

Sensitive Non-protected (Non-TAES) Species:

Occassionally whales offshore, harbor seals typically present. Black brant and migratory waterbirds --especially shorebirds-- occur in fall, winter, and spring. 100,000+ birds use Bay in winter for feeding and resting. Muskrat and beaver use marsh areas.

Subsistence-use Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Essential Fish Habitat:

Albacore, rockfish, salmon, lingcod, surf perch and crab.

Commercial Fisheries / Species:

Humboldt Bay is home to a large offshore commercial fishing fleet for crab, salmon, rockfish and albacore.

Critical Habitat for TAES:

Critical Habitat for Non-protected (Non-TAES) Species:

In addition to sandy shoreline, extensive mudflats and eelgrass beds are exposed during low tides.

Critical Habitat for Subsistence Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Historic and Cultural Resources:

Indian Island is a significant Native American cultural sie.

Recreational Species and Habitat:

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Towns bordering Humboldt Bay; Eureka (population 25,000), Arcata (population 17,000), King Salmon, Fields Landing, Samoa, Manila, Bayside.

Economic Impact on Commercial Fishing and Aquaculture:

Humboldt Bay pacific oyster mariculture in north bay. Commercially successful oyster seed production and grow-out operation. Humboldt Bay home to commercial fishing fleet for offshore crab, salmon, rockfish and albacore.

Economic Impact on Recreational Fishing and Marine Tourism:

Albacore, salmon, rockfish, lingcod, surf perch and crab are all popular seasonal offshore recreational fisheries.

Economic Impact on Maritime Commerce and Shipping:

Economy of area based on forest products production (export of raw and finished timber products). One bulk fuel terminal (gasoline and diesel), three fueling facilities. Shipment of petroleum products (gasoline and diesel) received every 4-10 days.

Economic Impact on Non-maritime Commerce:

Tourism in nearby towns of Eureka and Arcata. Eureka is county seat. Arcata is home to CSU Humboldt. CSUH row crews and recreational kayaking in Bay. Main traffic corridor (US Highway 101) on east side of Bay.

Other Economic Impacts:

Sector SF Section 8000 - 29 October 1, 2008

Latitu	PPOR Pre-Incident Information Summary for Latitude: 404784 124.19 Longitude: 124112 124.1867 County: Humboldt												
St	akehold	ler List fo	or this Plac	ce / Site									
	Name	e / Title			Organi	ization			Phone	more details			
			Tactical C			707.440	Marina Fira Fig	ating December	201				
Primary Jursidictional Contact: Always contact Port Au 0801				Authority /	07-443-	Marine Fire Figl	iling Resource	es					
Appro	ximate Tug F	Response Tim	пе										
List of	Nearby Env	ironmentally S	Sensitive Sites:	ACP 1: 30	5, 310, 32	20, 324, 32	6, 328, 330, 340	345		Is Co	ntainment Possible?		
Co	oast Pilot	and Navig	ation Chart	Informatio	n								
Preva	iling Winds	Tidal Range	Bottom Type:	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements		
				35							<b>✓</b>		
Sr	ecific Sit	e Details											
Site	Site Name		Ve	ssel Capacitie	s	Site	Capacities and F	acilities					
ID			Ма	x Max Ma		oom Faciliti	es, capabilities, and a		es or concern Cor	ntainmentPossiblities:			
	Schneider [	Dock	Dec	ep 950			oist at Fields Landing	boatyard (US	SEKA				

Pacific Affiliates 707-445-3001

# PPOR Pre-Incident Information Summary for Humboldt Bay: Sierra Pacific/14th Street

1-C10

Type: Dockage

Latitude: 404768 County: Humboldt

### **Location Description:**

#### Natural Resource Concerns and Issues for this Place / Site

124.19 Longitude: 124112 124.1878

Threatened and Endangered Species (TAES):

California brown pelican (FPD, SE), peregrine falcon (F delisted, SCD), stellar sea lion (FT), coho salmon (FE & FT, ST), chinook salmon (ESU, ST), steelhead trout (FSS), coastal cutthroat trout (FT). Salmon and trout spawning August through June, juvenile/smolts February through August.

Sensitive Non-protected (Non-TAES) Species:

Occasionally whales offshore, harbor seals typically present. Black brant and migratory waterbirds –especially shorebirds—occur in fall, winter and spring. 100,000+ birds use Bay in winter for feeding and resting. Muskrat and beaver use marsh areas.

Subsistence-use Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Essential Fish Habitat:

Albacore, rockfish, salmon, lingcod, surf perch and crab.

Commercial Fisheries / Species:

Humboldt Bay is home to a large offshore commercial fishing fleet for crab, salmon, rockfish and albacore.

Critical Habitat for TAES:

Critical Habitat for Non-protected (Non-TAES) Species:

In addition to sandy shoreline, extensive mudflats and eelgrass beds are exposed during low tides.

Critical Habitat for Subsistence Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Historic and Cultural Resources:

Indian Island is a significant Native American cultural site.

Recreational Species and Habitat:

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Towns bordering Humboldt Bay; Eureka (population 25,000), Arcata (population 17,000), King Salmon, Fields Landing, Samoa, Manila, Bayside.

Economic Impact on Commercial Fishing and Aquaculture:

Humboldt Bay pacific oyster mariculture in north bay. Commercially successful oyster seed production and grow-out operation. Humboldt Bay home to commercial fishing fleet for offshore crab, salmon, rockfish and albacore.

Economic Impact on Recreational Fishing and Marine Tourism:

Albacore, salmon, rockfish, lingcod and crab are all popular seasonal offshore recreational fisheries.

Economic Impact on Maritime Commerce and Shipping:

Economy of area based on forest products production (export of raw and finished timber products). One bulk fuel terminal (gasoline and diesel), three fueling facilities. Shipment of petroleum products (gasoline and diesel) received every 4 -10 days.

Economic Impact on Non-maritime Commerce:

Tourism in nearby towns of Eureka and Arcata. Eureka is county seat. Arcata is home to CSU Humboldt. CSUH row crews and recreational kayaking in Bay. Main traffic corridor (US Highway 101) on east side of Bay.

Latitu	OR Pre-I ude: 404768 ty: Humbold	124.19	nformation Longitude:		<b>ry for</b> 4.1878	Humbo	ldt Bay: Sierı	a Pacific	/14th Stree	t		Type: Dockage
St	akehold	er List fo	r this Plac	e / Site								
	Nam	e / Title			Organi	zation			Phone	more details		
-	aracteris ary Jursidictio		Tactical Co	onsiderat		07-443-	Marine Fire Fig	nting Resource	es:			
			0801									
Appro	oximate Tug I	Response Tim	Brusco 70	7-498-4618	Knutson	707-496-	0749					
List o	f Nearby Env	ironmentally S	ensitive Sites:	ACP 1: 305	, 310, 32	0, 324, 32	6, 328, 330, 340	345			Is Contair	nment Possible?
С	oast Pilot	and Navig	ation Chart I	nformation	1							
Preva	ailing Winds	Tidal Range	Bottom Type:	Max Water Depth	/lin Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storm	. 5	proach	Pilot Requirements
					38							<b>✓</b>
S	pecific Sit	e Details										
Site Site Name Vessel Capacities						Site	Capacities and F	acilities				
ID			Max Siz	-		om Faciliti	es, capabilities, and		es or concern C	ContainmentPossiblities	:	
	Sierra Pacif	ic/14th Street	Dee	p 600			loist at Fields Landin	boatyard (US	S EKA FLC			
						Must b	50 tons, 100'. he mindful of seasona ce. Local knowledge bldt Bay Harbor of Sa	essential. Ref	er to			

Sierra Pacific Industries 707-443-7039

# PPOR Pre-Incident Information Summary for Humboldt Bay: Chevron

124.2 **Longitude**: 124117

1-C11

Type: Dockage

Latitude: 404668 County: Humboldt

# **Location Description:**

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

California brown pelican (FPD, SE), peregrine falcon (F delisted, SCD), stellar sea lion (FT), coho salmon (FE & FT, ST), chinook salmon (ESU, ST), steelhead trout (FSS), coastal cutthroat trout (FT). Salmon and trout spawning August through June, juvenile/smolts February through August.

Sensitive Non-protected (Non-TAES) Species:

Occasionally whales offshore, harbor seals typically present. Black brant and migratory waterbirds –especially shorebirds—occur in fall, winter and spring. 100,000+ birds use Bay in winter for feeding and resting. Muskrat and beaver use marsh areas.

Subsistence-use Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Essential Fish Habitat:

Albacore, rockfish, salmon, lingcod, surf perch and crab.

Commercial Fisheries / Species:

Humboldt Bay is home to a large offshore commercial fishing fleet for crab, salmon, rockfish and albacore.

Critical Habitat for TAES:

Critical Habitat for Non-protected (Non-TAES) Species:

In addition to sandy shoreline, extensive mudflats and eelgrass beds are exposed during low tides.

Critical Habitat for Subsistence Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Historic and Cultural Resources:

Indian Island is a significant Native American cultural site.

Recreational Species and Habitat:

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Towns bordering Humboldt Bay; Eureka (population 25,000), Arcata (population 17,000), King Salmon, Fields Landing, Samoa, Manila, Bayside.

Economic Impact on Commercial Fishing and Aquaculture:

Humboldt Bay pacific oyster mariculture in north bay. Commercially successful oyster seed production and grow-out operation. Humboldt Bay home to commercial fishing fleet for offshore crab, salmon, rockfish and albacore.

Economic Impact on Recreational Fishing and Marine Tourism:

Albacore, salmon, rockfish, lingcod and crab are all popular seasonal offshore recreational fisheries.

Economic Impact on Maritime Commerce and Shipping:

Economy of area based on forest products production (export of raw and finished timber products). One bulk fuel terminal (gasoline and diesel), three fueling facilities. Shipment of petroleum products (gasoline and diesel) received every 4 -10 days.

Economic Impact on Non-maritime Commerce:

Tourism in nearby towns of Eureka and Arcata. Eureka is county seat. Arcata is home to CSU Humboldt. CSUH row crews and recreational kayaking in Bay. Main traffic corridor (US Highway 101) on east side of Bay.

PPOR Pre-In	<u>ncident</u>	Informa	ation	Sum	mary	for H	lumbo	Idt Bay: Chev	/ron				1-C11
<b>Latitude:</b> 404668		4.2 Longit	ude: ´	124117	124.	.1963							Type:
County: Humboldt													Dockage
Stakehold	er List 1	for this	Place	/ Sit	е								
Name	/ Title					Organiza	tion			Phone	more de	tails	
Characteria	lioo one	l Taatia	al Ca	naida		ono							
Characteris Primary Jursidiction							7 442	Marine Fire Fig	htina Desource	ve.			
Tilliary Jursidiction	iai Contact.	0801	ys cont	act Po	nτ Aut	thority 70	7-443-	Marine Fire Fig	nung Resource	:5.			
Approximate Tug F	Response Ti		n 707-	498-4	618· k	Knutson 7	'07 <u>-</u> 496	 ∩749					
								6, 328, 330, 340	245			le Conta	inment Possible?
						310, 320,	324, 32	.0, 326, 330, 340	, 343			13 001110	miniciti i ossibie:
Coast Pilot						- \A/-t	O	Coo Conditions	Гол	Chaltan Fra	ma Nieusi		Pilot
Prevailing Winds	Tidal Range	Bottom	Type: IV	nax vvat Depth		n Water Depths	Currents	Sea Conditions	Fog	Shelter Fro Severe Stor		gational Approach	Requirements
				. ;	30	24							
Specific Site	Details												
Site Site Name	<i>-</i>		Vess	el Capa	cities		Sito	Capacities and F	- -acilities				
ID Site Hame			Max	<del></del> .		Swing Roor		es, capabilities, and		es or concern	Containment	Possiblities:	
			Size			or Dock Fac		oo, oapaomaoo, ana	u, oooou				
Chevron			Deep	400		4	00 This is	the only fuel termina	I in Bay for off-	loading fuel.			
- "			1							=			
								oist at Fields Landino 50 tons, 100'.	g boatyard (US	EKA FLC			

Chevron 707-444-7850

124.22 **Longitude:** 124131

PPOR Pre-Incident Information Summary for Humboldt Bay: Fields Landing - Bay Forest Products

1-C12

Type: Dockage

Latitude: 404396 County: Humboldt

# **Location Description:**

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

California brown pelican (FPD, SE), peregrine falcon (F delisted, SCD), stellar sea lion (FT), coho salmon (FE & FT, ST), chinook salmon (ESU, ST), steelhead trout (FSS), coastal cutthroat trout (FT). Salmon and trout spawning August through June, juvenile/smolts February through August.

Sensitive Non-protected (Non-TAES) Species:

Occasionally whales offshore, harbor seals typically present. Black brant and migratory waterbirds –especially shorebirds—occur in fall, winter and spring. 100,000+ birds use Bay in winter for feeding and resting. Muskrat and beaver use marsh areas.

Subsistence-use Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Essential Fish Habitat:

Albacore, rockfish, salmon, lingcod, surf perch and crab.

Commercial Fisheries / Species:

Humboldt Bay is home to a large offshore commercial fishing fleet for crab, salmon, rockfish and albacore.

Critical Habitat for TAES:

Critical Habitat for Non-protected (Non-TAES) Species:

In addition to sandy shoreline, extensive mudflats and eelgrass beds are exposed during low tides.

Critical Habitat for Subsistence Species:

Some Native American subsistence gathering of seaweeds and invertebrates.

Historic and Cultural Resources:

Indian Island is a significant Native American cultural site.

Recreational Species and Habitat:

# Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Towns bordering Humboldt Bay; Eureka (population 25,000), Arcata (population 17,000), King Salmon, Fields Landing, Samoa, Manila, Bayside.

Economic Impact on Commercial Fishing and Aquaculture:

Humboldt Bay pacific oyster mariculture in north bay. Commercially successful oyster seed production and grow-out operation. Humboldt Bay home to commercial fishing fleet for offshore crab, salmon, rockfish and albacore.

Economic Impact on Recreational Fishing and Marine Tourism:

Albacore, salmon, rockfish, lingcod and crab are all popular seasonal offshore recreational fisheries.

Economic Impact on Maritime Commerce and Shipping:

Economy of area based on forest products production (export of raw and finished timber products). One bulk fuel terminal (gasoline and diesel), three fueling facilities. Shipment of petroleum products (gasoline and diesel) received every 4 -10 days.

Economic Impact on Non-maritime Commerce:

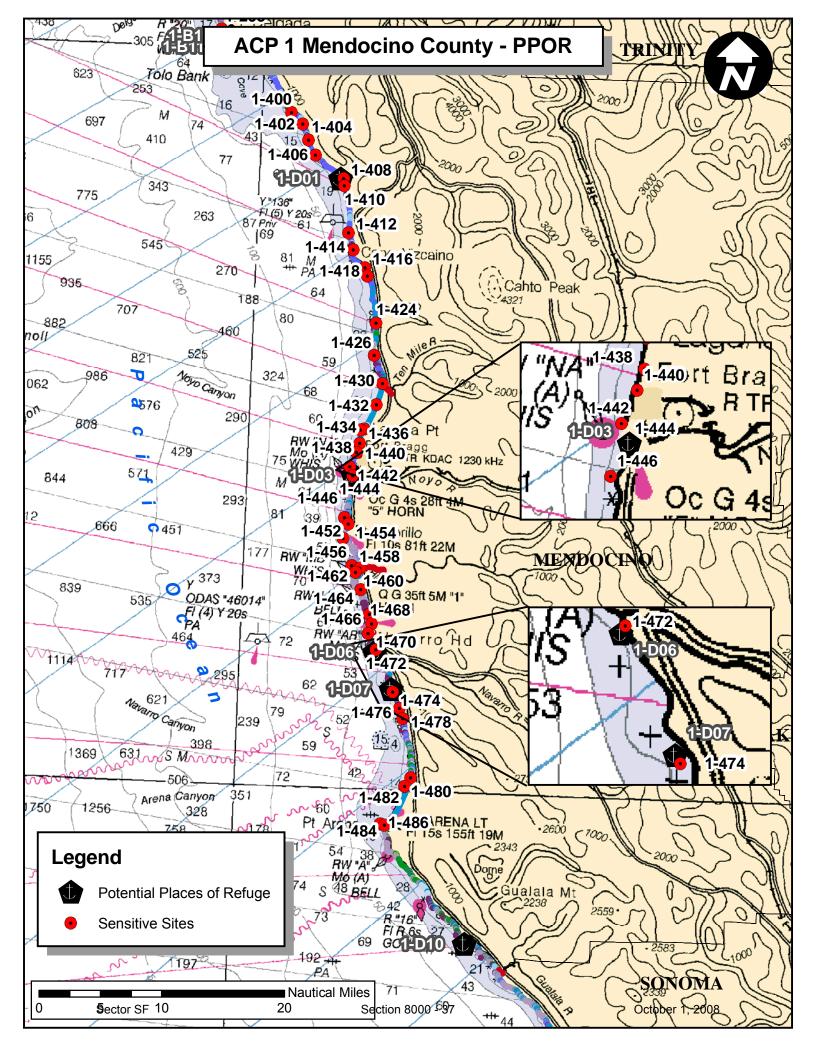
Tourism in nearby towns of Eureka and Arcata. Eureka is county seat. Arcata is home to CSU Humboldt. CSUH row crews and recreational kayaking in Bay. Main traffic corridor (US Highway 101) on east side of Bay.

Other Economic Impacts:

Latitu	OR Pre-I ide: 404396 ty: Humbold					ry for 24.2192	Humb [	oldt Bay: Fields	s Landir	ng - Bay Fo	orest Prod	ducts	<b>1-C12</b> Type: Dockage
St	akeholo	ler List fo	or this P	lace	/ Site								
	Nam	e / Title				Organ	ization			Phone	more deta	ails	
Cha	aracteris	tics and	Tactica	Cor	nsiderat	tions							
Prima	ıry Jursidictio	nal Contact:	Always 0801	conta	act Port A	uthority 7	707-443-	Marine Fire Fight	ing Resourc	es:			
Appro	ximate Tug	Response Tin	ne Brusco	707-4	498-4618	; Knutsor	า 707-496	6-0749					
List of	f Nearby Env	rironmentally	Sensitive Site	s: A	CP 1: 305	5, 310, 32	20, 324, 3	26, 328, 330, 340,	345			Is Conta	ainment Possible?
		and Navig											
	ailing Winds	Tidal Range			ax Water N		Currents	Sea Conditions	Fog	Shelter From Severe Store		ational Approach	Pilot Requirements
					26								✓
S	pecific Sit	e Details											
Site	Site Name			Vesse	l Capacities	;	Site	Capacities and Fa	acilities				
ID					Max Max Lgth Draft		oom Facil	ities, capabilities, and ar	ny other issu	es or concern	ContainmentP	ossiblities:	
	Fields Land Products	ing - Bay For	est	Deep	600			hoist at Fields Landing 12); 150 tons, 100'.	boatyard (US	S EKA			
							entra Hum	be mindful of seasonal unce. Local knowledge e boldt Bay Harbor of Safe ort, Nov. 2007 (via Port A	ssential. Ref e Refuge Sin	fer to			

Humboldt Bay Forest Products 707-443-5631

Site Contact/Leasee/Owner:



# 1-D01 PPOR Pre-Incident Information Summary for Mendocino County: Usal Beal 123.86 **Longitude:** 123513 Latitude: 394981 Type: County: Mendocino Anchorage **Location Description:** Natural Resource Concerns and Issues for this Place / Site Threatened and Endangered Species (TAES): Critical Habitat for TAES: California brown pelican (FPD, SE), stellar sea lion (FT) Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: Many Subsistence-use Species: Critical Habitat for Subsistence Species: Historic and Cultural Resources: Essential Fish Habitat: Essential Fish Habitat for pelafic finfish, salmon, ground fish. Recreational Species and Habitat: Commercial Fisheries / Species: Nearshore rockfish, salmon, crab. Albacore, rockfish, salmon, crab. Human Health / Safety Concerns and Economic Issues for this Place / Site Human Health and Safety: Economic Impact on Maritime Commerce and Shipping: Economic Impact on Commercial Fishing and Aquaculture: **Economic Impact on Non-maritime Commerce:** Economic Impact on Recreational Fishing and Marine Tourism: Other Economic Impacts: Stakeholder List for this Place / Site Name / Title Organization Phone more details **Characteristics and Tactical Considerations** Primary Jursidictional Contact: State Parks, Eel River Distric Office 707 Marine Fire Fighting Resources: 986-7711

PPOR Pro Latitude: 394 County: Mend	981 123	Information 86 Longitude:		<b>ary for</b> 123.8564	Mendo	cino County	: Usal Bea	nl			<b>1-D01</b> Type: Anchorage
List of Nearby	Environmentally	/ Sensitive Sites:	ACP 1: 40	06, 408						Is Containme	ent Possible?
Coast Pi	lot and Nav	igation Chart	Informatio	on							
Prevailing Win	ridal Range	Bottom Type:	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter Fro Severe Stor	3	roach	Pilot Requirements
			55	30							
Specific	Site Details										
Site Site Nar	me	Ve	ssel Capaciti	es	Site	Capacities and	Facilities				
ID		Ma Si:		ax Swing Roo aft or Dock Fa	om Faciliti	es, capabilities, and		es or concern	ContainmentPossiblities:		
Usal Be	al					ite is approximately and approximately 2					
Site Contact/Le	easee/Owner:	Sinkyone '	Wildernes	s State Park	(	-			•		

# 1-D03 PPOR Pre-Incident Information Summary for Mendocino County: Fort Bragg- Noyo Bay Latitude: 392567 123.81 Longitude: 123487 Type: County: Mendocino Anchorage **Location Description:** Natural Resource Concerns and Issues for this Place / Site Threatened and Endangered Species (TAES): Critical Habitat for TAES: California brown pelican (FPD, SE), stellar sea lion (FT) Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: Many Subsistence-use Species: Critical Habitat for Subsistence Species: Historic and Cultural Resources: Essential Fish Habitat: Essential Fish Habitat for pelagic finfish, salmon, ground fish. Recreational Species and Habitat: Commercial Fisheries / Species: Nearshore rockfish, salmon, crab. Abalone, rockfish, salmon, crab. Human Health / Safety Concerns and Economic Issues for this Place / Site Human Health and Safety: Economic Impact on Maritime Commerce and Shipping: Economic Impact on Commercial Fishing and Aquaculture: **Economic Impact on Non-maritime Commerce:** Economic Impact on Recreational Fishing and Marine Tourism: Other Economic Impacts: Stakeholder List for this Place / Site Name / Title Organization Phone more details Characteristics and Tactical Considerations

Marine Fire Fighting Resources:

Primary Jursidictional Contact:

Novo Harbor District 707-964-4719

PPOR Pre Latitude: 3925 County: Mendo	67 123.8			mary for 123.813	Mendo	cino County:	Fort Bra	igg- Noyo Ba	у	1-D03 Type: Anchorage
List of Nearby E  Coast Pile	nvironmentally s		,	430, 432, 44 tion	0, 442, 44	4, 448, 452			Is Conta	inment Possible?
Prevailing Wind	s Tidal Range	Bottom Typ	Depth	Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
Specific S	Site Details		Vessel Capa	12 cities		Canacities and I	Cacilitias	No protection		<u> </u>
ID			Max Max Size Lgth		oom Facilit	Capacities and I		ues or concern Co	ntainmentPossiblities:	
Fort Brag Site Contact/Lea	g- Noyo Bay asee/Owner:		Deep		400					

# 1-D06 PPOR Pre-Incident Information Summary for Mendocino County: Navarro Head 123.76 **Longitude:** 123457 Latitude: 391132 Type: County: Mendocino Anchorage **Location Description:** Natural Resource Concerns and Issues for this Place / Site Threatened and Endangered Species (TAES): Critical Habitat for TAES: California brown pelican (FPD, SE), peregrine falcon (F delisted, SCD), stellar sea lion (FT) Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: Many Subsistence-use Species: Critical Habitat for Subsistence Species: Essential Fish Habitat: Historic and Cultural Resources: Essential Fish Habitat for pelagic finfish, salmon, groundfish. Commercial Fisheries / Species: Recreational Species and Habitat: Albacore, rockfish, salmon, crab. Nearshore rockfish, salmon, crab. Human Health / Safety Concerns and Economic Issues for this Place / Site Economic Impact on Maritime Commerce and Shipping: Human Health and Safety: Economic Impact on Commercial Fishing and Aquaculture: Economic Impact on Non-maritime Commerce: Economic Impact on Recreational Fishing and Marine Tourism: Other Economic Impacts: Stakeholder List for this Place / Site Name / Title Organization Phone more details Characteristics and Tactical Considerations **Primary Jursidictional Contact:** Marine Fire Fighting Resources:

	R Pre-I le: 391132				mary for 123.7632	Mendo	cino County:	Navarro	Head		<b>1-D06</b> Type:
County	: Mendocii	no									Anchorage
List of	Nearby Env	rironmentally S	Sensitive Sit	es: ACP 1:	468, 470, 47	2, 474				Is Conta	inment Possible?
Co	ast Pilot	and Navig	ation Ch	art Informa	ation						
Prevai	ling Winds	Tidal Range	Bottom T	/pe: Max Wa Depth		Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
					30				From NW wind		
Sp	ecific Sit	e Details									
	Site Name			Vessel Capa	cities	Site	Capacities and	Facilities			
ID				Max Max Size Lgth	Max Swing Ro Draft or Dock F		es, capabilities, and	any other issu	ues or concern Con	tainmentPossiblities:	
	Navarro He	ad		Deep		Fair sh	nelter from NW winds	5			
Site Co	ntact/Lease	ee/Owner:		•							

# 1-D07 PPOR Pre-Incident Information Summary for Mendocino County: Cuffey's Cove 123.73 **Longitude:** 123439 Latitude: 390835 Type: County: Mendocino Anchorage **Location Description:** Natural Resource Concerns and Issues for this Place / Site Threatened and Endangered Species (TAES): Critical Habitat for TAES: California brown pelican (FPD, SE), peregrine falcon (F delisted, SCO), stellar sea lion (FT) Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: Many Subsistence-use Species: Critical Habitat for Subsistence Species: Essential Fish Habitat: Historic and Cultural Resources: Essential Fish Habitat for pelagic finfish, salmon, groundfish. Commercial Fisheries / Species: Recreational Species and Habitat: Albacore, salmon, rockfish, crab Nearshore rockfish, salmon, crab Human Health / Safety Concerns and Economic Issues for this Place / Site Economic Impact on Maritime Commerce and Shipping: Human Health and Safety: Economic Impact on Commercial Fishing and Aquaculture: Economic Impact on Non-maritime Commerce: Economic Impact on Recreational Fishing and Marine Tourism: Other Economic Impacts: Stakeholder List for this Place / Site Name / Title Organization Phone more details Characteristics and Tactical Considerations **Primary Jursidictional Contact:** Marine Fire Fighting Resources:

PPO	R Pre-I	ncident	Informa	tion	Sumi	mar	ry for	Mendo	cino County:	: Cuffey's	Cove		1-D07
Latitude	e: 390835	123.7	3 Longitu	ıde:	123439	123	3.7318		-	-			Type:
County:	Mendocii	no											Anchorage
List of N	earby Env	rironmentally	Sensitive Sit	tes: /	ACP 1:	472	, 474, 470	6, 478				Is Cor	ntainment Possible?
Coa	st Pilot	and Navig	gation Ch	art In	nforma	tion							
Prevaili	ng Winds	Tidal Range	Bottom T	ype: N	Max Wate Depth	er M	lin Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Stor	3	Pilot Requirements
					3	30	20						
Spe	cific Sit	e Details											
	ite Name			Vess	sel Capac	cities		Site	Capacities and	Facilities			
ID				Max Size	-				ies, capabilities, and	I any other issu	es or concern	ContainmentPossiblities:	
C	uffey's Co	ve		Deep	)				caution with numero				
								- Cuffe	anchorage in NW wi ey Inlet excellent and / weather		all boats in N		
Site Cor	ntact/Lease	ee/Owner:											

# 1-D10 PPOR Pre-Incident Information Summary for Mendocino County: Haven's Anchorage 123.59 Longitude: 123352 Latitude: 384783 Type: County: Mendocino Anchorage **Location Description:** Natural Resource Concerns and Issues for this Place / Site Threatened and Endangered Species (TAES): Critical Habitat for TAES: California brown pelican (FPD, SE) peregrine falcon (F delisted, SCD), stellar sea lion (FT) Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: Many Subsistence-use Species: Critical Habitat for Subsistence Species: Essential Fish Habitat: Historic and Cultural Resources: Essential Fish Habitat for pelagic finfish, salmon, ground fish. Commercial Fisheries / Species: Recreational Species and Habitat: Albacore, rockfish, salmon, crab Human Health / Safety Concerns and Economic Issues for this Place / Site Economic Impact on Maritime Commerce and Shipping: Human Health and Safety: Economic Impact on Commercial Fishing and Aquaculture: Economic Impact on Non-maritime Commerce: Economic Impact on Recreational Fishing and Marine Tourism: Other Economic Impacts: Stakeholder List for this Place / Site Name / Title Organization Phone more details Characteristics and Tactical Considerations

Marine Fire Fighting Resources:

**Primary Jursidictional Contact:** 

<b>PPOR Pre</b>	-Incident I	nformati	on Sum	mary for	Mendo	cino County:	Haven's	Anchorage		1-D10
Latitude: 3847	83 123.5	9 <b>Longitude</b>	: 123352	123.5872	]	•		•		Type:
County: Mendo	cino				_					Anchorage
List of Nearby E	nvironmentally S	Sensitive Sites	:	-					Is Conta	inment Possible?
Coast Pile	ot and Navig	jation Chai	t Informa	tion						
Prevailing Wind	s Tidal Range	Bottom Typ	e: Max Wate Depth		Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
			(	30						
Specific S	ite Details									
Site Site Nam	е	\	/essel Capac	ities	Site	Capacities and I	Facilities			
ID			Max Max Size Lgth	Max Swing Ro Draft or Dock		ies, capabilities, and	any other issu	ues or concern C	ContainmentPossiblities:	
Haven's	Anchorage	С	) Реер	0						
Site Contact/Lea	see/Owner:				•					

#### 8240 ACP 2 – San Francisco Bay and Delta Area Committee PPOR

#### 8241 Pre-Incident Summary Background

#### 8241.1 Potential Places of Refuge Subcommittee

The SFBD PPOR subcommittee formally met on various occasions from June 2007 to July 2008 to identify PPOR sites in accordance with references (a) and (b). During the period June 2007 to August 2007, 94 SFBD PPOR sites were identified to be included in the California Statewide PPOR Database. These 94 sites were chosen by a subcommittee consisting of representatives from various SFBD Area Committee members, including pilots, natural resource agencies, and port authorities. Of these 94 sites, detailed physical, navigational, health and human safety, economic and natural resource information was provided for 22 deep draft sites within the ACP 2 AOR. All sites identified within the SFBD AOR were selected solely based on its capability to accommodate a deep draft vessel. This PPOR effort did not evaluate the ability of a vessel to safely transit to a particular site, nor was the potential environmental impact used as a basis for site selection. Instead, PPOR sites within this AOR addressed the high risk vessels and potential oil spill scenarios, specifically deep draft vessels. PPOR sites were determined solely based on suitability to house a deep draft vessel. All other operational considerations must be taken into account when determining where to place a vessel in peril. Currently, only the 22 sites identified in this section will be deemed operationally viable options for a PPOR. These 22 PPOR sites are strategically located throughout the SFBD area which account for "Place of Refuge" incidents that might result in the release of oil within the SFBD AOR. If the need arises, a detailed assessment of the remaining 72 SFBD sites may be conducted at a future date for consideration and inclusion in the list of PPOR sites pre-identified in this section of the ACP. Primary Participants included: U.S. Coast Guard Sector San Francisco's Planning Department, Vessel Traffic Service, San Francisco Bar Pilots, U.S. Department of the Interior (DOI), California Department of Fish and Game, Office of Spill Prevention and Response (CDFG-OSPR), California Coastal Commission, San Francisco Bay Conservation and Development Commission (BCDC), and National Oceanic and Atmospheric Administration (NOAA). Representatives from these agencies were involved with providing physical, navigational, health and human safety, and economic information for the designated 22 deep draft PPOR for the SFBD AOR. During May 2008 to July 2008, a workgroup branched off from this SFBD PPOR subcommittee to handle all natural resource concerns for these 22 PPOR sites, ensuring validation of this information with natural resource trustees within the SFBD AOR.

#### 8241.2 Natural Resources Workgroup

Involvement of local natural resource trustee agencies occurred at three levels: 1) the PPOR Natural Resources Workgroup included trustees from NOAA – Gulf of the Farallones National Marine Sanctuary, DOI, and CDFG-OSPR; and 2) draft PPOR Pre-Incident Information Summaries were forwarded to other trustee agencies including National Park Service and U.S. Fish & Wildlife Service for review and comment, which was incorporated into the final PPOR draft; and 3) the final draft was posted for review and comment by the entire Area Committee which includes representatives of local resource agencies such as California State Parks and East Bay Regional Park District.

The Natural Resources Workgroup of the PPOR subcommittee was tasked with providing natural resource information for the 22 deep draft PPOR identified for the SFBD-ACP 2 area of concern. Natural Resource information was entered directly into the PPOR Database for these sites.

The NOAA TAP II model was utilized for the PPOR effort. TAP II was run in the Shoreline Impact Analysis mode to assess shorelines likely to be impacted in the event of a petroleum release from each of the modeled PPORs except for Drakes Bay (2-DD01), Port of Stockton (2-Q00) and Port of Sacramento (2-S01). TAP Modeling input parameters for each location were:

Season	Time	Oil Type	Amount Released	Amount of Concern
March- August	12 hours	Non- Weathering	13,000 barrels	1000 barrels
September- February	12 hours	Non- Weathering	13,000 barrels	1000 barrels

Results of TAP II modeling were combined for PPOR Sites within the following areas: San Francisco South, Oakland Outer Harbor, South Bay Anchorages, South Bay East Shore, Central Bay Anchorages, Richmond Harbor/Santa Fe Channel, Carquinez Strait West, and Carquinez Strait East. Areas likely to be impacted by releases from any of the grouped PPOR sites were identified and natural resource data for these areas compiled.

Geographic Information Systems (GIS) maps were generated by the CDFG-OSPR GIS Unit for each of the listed PPOR areas, including the three sites not modeled (Drakes Bay, Port of Stockton and Port of Sacramento). These maps are included at the beginning of each PPOR Site cluster and include graphical natural resource information from two primary sources.

The two natural resource information sources for shorelines likely to be impacted were: SFBD-ACP sensitive site and resource descriptions (Section 9800); and Environmental Sensitivity Index (ESI) Maps developed by NOAA and CDFG-OSPR which show environmental sensitivity of shorelines and species to oiling. The ESI Map legend is included as an attachment in this section

Identification and assessment of appropriate PPOR sites within the SFBD area is ongoing and will continue to be refined.

#### References:

(a) COMDTINST 16451.9, Coast Guard Places of Refuge Policy <a href="http://www.uscq.mil/directives/ci/16000-16999/Cl">http://www.uscq.mil/directives/ci/16000-16999/Cl</a> 16451 9.pdf

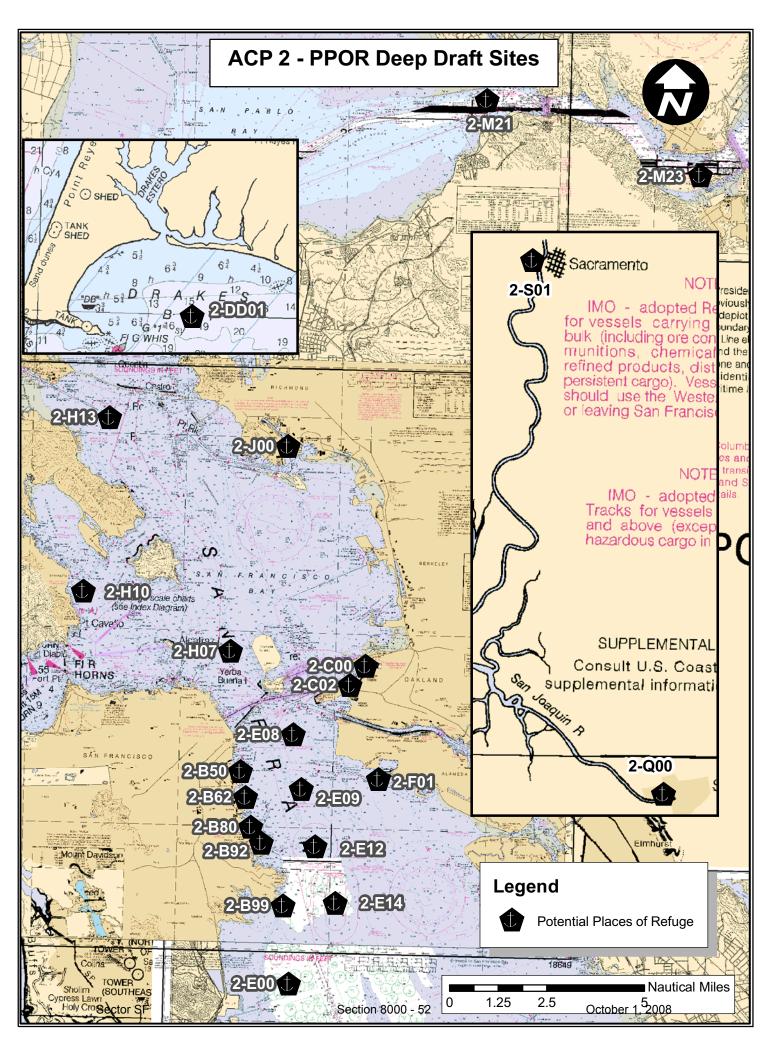
(b) RRT9 Guidelines for Places of Refuge Decision-Making Appendix XXVI http://www.dfg.ca.gov/ospr/response/acp/marine/2005RCP/rcp 2005 index.html

# 8242 Potential Places of Refuge Site Index

				Deg/M	in/Sec
Site #	Place Name	Site Name	Co.	N	W
2-B50	San Francisco South	Pier 50	SF	37 46 25	-122 22 58
2-B62	San Francisco South	SF Dry Dock	SF	37 45 45	-122 22 48
2-B80	San Francisco South	Army Street Terminal/Pier 80	SF	37 45 00	-122 22 36
2-B92	San Francisco South	Piers 92/94/96	SF	37 44 36	-122 22 15
2-B99	San Francisco South	Hunters Point	SF	37 43 00	-122 21 30
2-C00	Oakland Outer Harbor	Any Site	Α	37 49 12	-122 19 00
2-C02	Oakland Outer Harbor	Berths 20-38	Α	37 48 42	-122 19 30
2-E00	South Bay Anchorages	Any Other Anchorage	SF/A	37 41 00	-122 21 15
2-E08	South Bay Anchorages	Anchorage 8	SF/A	37 47 23	-122 21 18
2-E09	South Bay Anchorages	Anchorage 9	SF/A	37 46 00	-122 21 00
2-E12	South Bay Anchorages	Anchorage 12	SF/A	37 44 32	-122 20 30
2-E14	South Bay Anchorages	Anchorage 14	SF/A	37 43 60	-122 19 48
2-F01	South Bay East Shore	Alameda Point/Naval Station	Α	37 46 17	-122 18 30
2-H07	Central Bay Anchorages	Anchorage 7	SF/M	37 49 30	-122 23 23
2-H10	Central Bay Anchorages	Anchorage 10	M	37 50 57	-122 28 13
2-H13	Central Bay Anchorages	Anchorage 13	M	37 55 25	-122 27 31
2-J00	RichmondHarb/SFChannel	PARR 3	CC	37 54 47	-122 21 41
2-M21	Carquinez Strait West	Anchorage 21	Sol	38 03 47	-122 15 30
2-M23	Carquinez Strait East	Anchorage 23	Sol	38 02 00	-122 00 51
2-Q00	Port of Stockton/SJ River	Any Site	SJ	37 57 90	-121 19 60
2-S01	Port of Sacramento	Sacramento	Υ	38 33 47	-121 33 00
2-DD01	Drakes Bay	Deep Anchorage	M	38 00 00	-122 55 00

# 8243 Potential Places of Refuge Chart/Pre-Incident Summary Sheets

This section contains SF Bay & Delta Places of Refuge Charts and Pre-Incident Summary Sheets.



# SAN FRANCISCO BAY

#### **SHORELINE HABITAT RANKINGS**

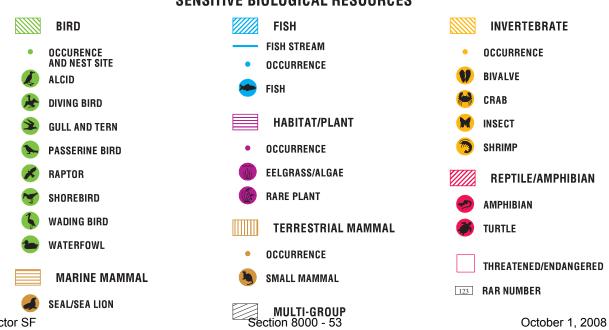
1A EXPOSED ROCKY SHORES 1B EXPOSED. SOLID MAN-MADE STRUCTURES 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK 3A FINE- TO MEDIUM-GRAINED SAND BEACHES 3B SCARPS AND STEEP SLOPES IN SAND **COARSE-GRAINED SAND BEACHES** 5 MIXED SAND AND GRAVEL BEACHES **6A GRAVEL BEACHES 6B RIPRAP** 7 EXPOSED TIDAL FLATS **8A SHELTERED ROCKY SHORES** 8B SHELTERED, SOLID MAN-MADE STRUCTURES **8C SHELTERED RIPRAP** SHELTERED TIDAL FLATS 9B VEGETATED LOW RIVERINE BANKS 10A SALT- AND BRACKISH-WATER MARSHES **TIDAL MARSHES MUTED TIDAL MARSHES** MANAGED MARSHES **DIKED MARSHES** 

# **HUMAN-USE FEATURES**

**SALT PONDS** 

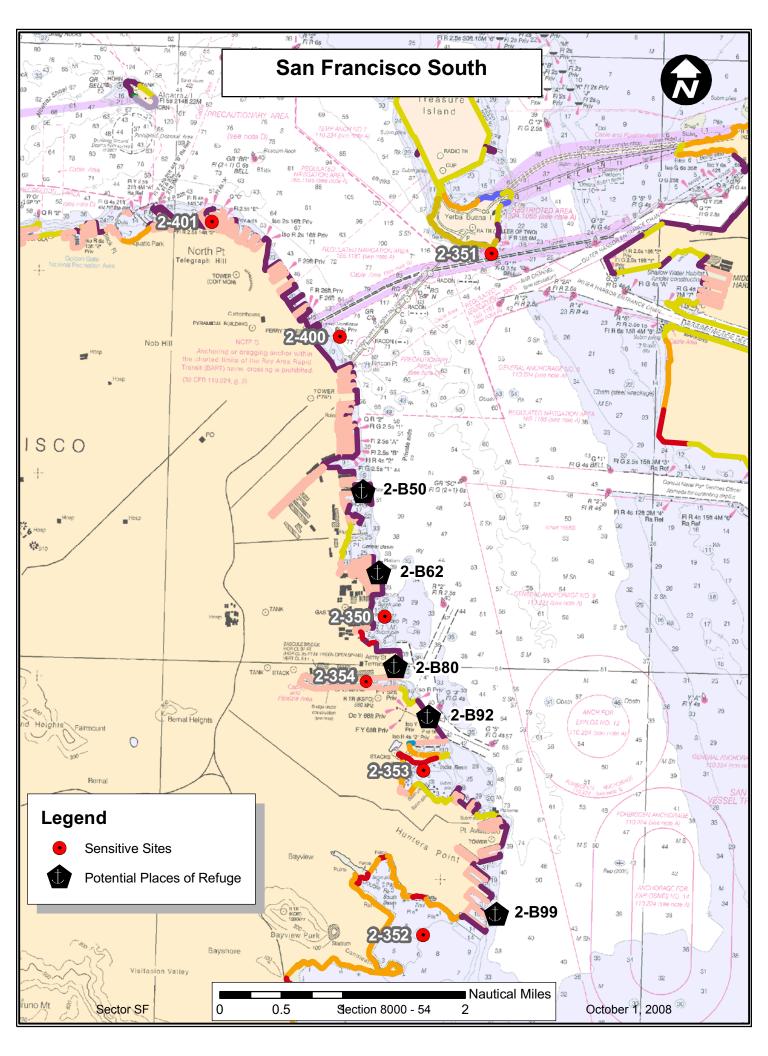


#### **SENSITIVE BIOLOGICAL RESOURCES**



Sector SF

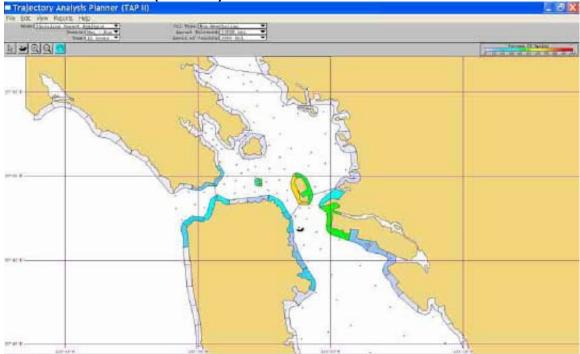
October 1, 2008

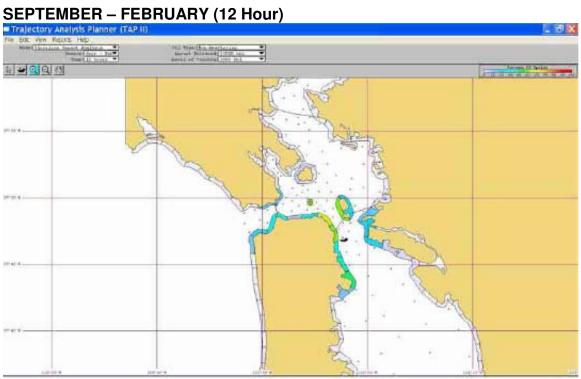


# TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-B50 (Pier 50)







### PPOR Pre-Incident Information Summary for San Francisco South: Pier 50

122.38 Longitude: 122° 2

2-B50 Type:

Latitude: 37° 46.4' County: San Francisco

Dockage

# **Location Description:**

Pier 50 (Mission Rock Terminal) covers approximately 18.5 acres and is in a highly industrial area with few residences in the immediate area. The site provides six berths along its three sides: 1,575 feet (35 feet MLLW) along the north side; 1,000 feet (45 feet MLLW) along the east face and 1,480 feet (35 MLLW) along the south side. Pier 50 is capable of handling breakbulk cargo and lay berth (long-term dockage). Four transit sheds and 231,000 square feet of covered storage may be available on-site. Opportunities for containment are available on the north and south sides but not along the east face. The site is directly accessible from the open bay and has nearby access to Interstates 80 and 280.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW (i.e. away from land) whereas Summer winds are often out of the W and NW. Tidal currents in the area dominate water flows and may be as high as 3.5knot floods (to the south) and nearly 4.5knot ebbs (to the north).

Concrete bulkhead and riprap shorelines dominate the area with little/no sensitive shoreline habitat or shallow water habitats known nearby. Pacific Herring may spawn in the area during the winter months and Chinook Salmon is an Endangered species that may occur in nearby bay waters during the winter months

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from May-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:350E/X,351A/B,352B,353A,354A,400C/X,401B; ESI/SFB-Maps 16.19.20

SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation, pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety of water birds, shorebirds and upland songbirds. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March.

Critical Habitat for TAES:

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

Critical Habitat for Non-protected (Non-TAES) Species:

PPOR Pre-Incident Information Summary for	San Francisco South: Pier 50	2-B50	
Latitude:37° 46.4'122.38Longitude:122° 2122.383County:San Francisco		Type: Dockage	
Subsistence-use Species:	Critical Habitat for Subsistence Species:		
Essential Fish Habitat:	Historic and Cultural Resources:		
Commercial Fisheries / Species:  Commercial fishing from TI/YBI.	Recreational Species and Habitat:		

# Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Approximately 55,000 people live, work or play near this site.

Economic Impact on Commercial Fishing and Aquaculture:

Port of San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

Port of San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Economic Impact on Maritime Commerce and Shipping:

Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

#### Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

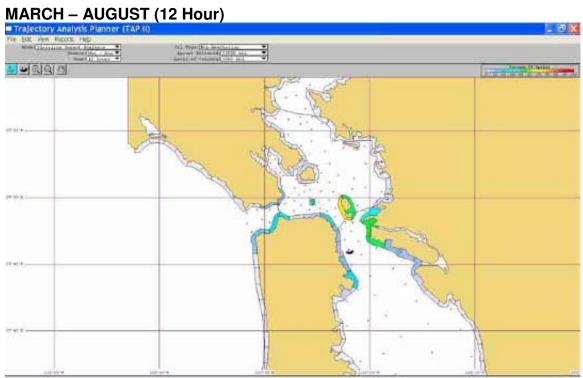
_	Name / Title	Organization	Phone	more details
	Communication Center	GGNRA	(415) 561-5505	
E	Carol Bach	Port of San Francisco	(415) 274-0568	
E/C	Bill Doll Chief of Resources	San Francisco Maritime National Historical Park	(415) 859-6779	
	Daphne Hatch	GGNRA	(415) 331-0744	
	Office of Superintendent	GGNRA	(415) 561-4722	
О	City of San Francisco	San Francisco, City and County of	(415) 556-8371	
E/O	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
E	Sidonie Sansom DirHomeland Security	Port of San Francisco	(415) 274-0544	
О	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644	
T	Viktoriya Sirova EnvProtectSpecialist	US National Park Service, Golden Gate (NRA)	(415) 561-4731	
T	Brian Ullensvang Env. Programs Chief	Golden Gate National Recreation Area - NPS	(415) 561-4439	

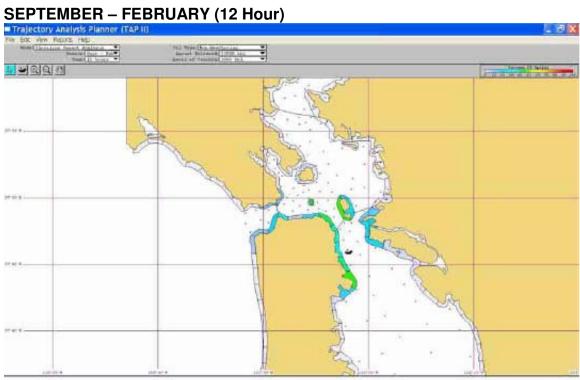
2-B50 PPOR Pre-Incident Information Summary for San Francisco South: Pier 50 \_atitude: 37° 46.4' 122.38 Longitude: 122° 2 122.383 Type: County: San Francisco Dockage **Characteristics and Tactical Considerations Primary Jursidictional Contact:** Port of San Francisco Marine Fire Fighting Resources: SF PIER 24: 37-47.42, 122-23.24 Approximate Tug Response Times 1 HOUR List of Nearby Environmentally Sensitive Sites: SFACP2; 2-350E/X,2-351A/B,2-352B,2-353A,2-400C/X,2-401B; ESI/SFB - Maps 16, 19, 2 Is Containment Possible? **V Coast Pilot and Navigation Chart Information** Pilot Prevailing Winds Tidal Bottom Type: Max Water Min Water Currents Sea Conditions Fog Shelter From Navigational Approach Requirements Range Depth Depths Severe Storms W 6 MUD 38 0 SEASONAL YES **~ Specific Site Details** Site Site Name Vessel Capacities Site Capacities and Facilities ID Max Max Swing Room Facilities, capabilities, and any other issues or concern Max ContainmentPossiblities: Size Lgth Draft or Dock Face Deep 1000 38 1000 1000 IS THE MAX LENGTH OF VESSEL ABLE TO BE 50 Pier 50 All the piers within this place have poor containment on the AT THIS SITE. ends exposed to the Bay currents, but have signicant potential for containment on the north and south sides of the piers, SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN particularly if other vessels are already positioned on the opposite site of the warf. Secondary confinement of oil AND PHOENIX escaping containment is variable and not particularly good SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN except at the SF Dry Dock. AND PHOENIX: OTHER FIREFIGHTING RESOURCES COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND.

Site Contact/Leasee/Owner:

# TRAJECTORY ANALYSIS PLANNER (TAP Model) Location: 2-B62 (SF Dry Dock)







#### PPOR Pre-Incident Information Summary for 122.38 Longitude:

San Francisco South: SF Dry Dock

2-B62 Type:

Latitude: 37° 45.8' County: San Francisco

Dockage

# **Location Description:**

San Francisco Dry Dock (Pier 70) occupies 26 acres and is one of the largest ship repair yards on west coast. The facility has four piers and two floating dry docks, one of which is the largest floating drydock on the West Coast. Dry Dock Number 1 is 654 feet long by 98 feet wide and has a lifting capacity of 21,000 long tons. Dry Dock Number 2 is 900 feet long by 148 feet wide and has a lifting capacity of 65,003 long tons. The site is directly accessible from the open bay and has nearby access to Interstates 80 and 280.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW (i.e. away from land) whereas Summer winds are often out of the W and NW. Tidal currents in the area would dominate water flows and may be as high as 2.5knot floods (to the south) and nearly 3.5knot ebbs (to the north).

Concrete bulkhead and riprap shorelines dominate the area with little/no sensitive shoreline habitat or shallow water habitats known nearby. Pacific Herring may spawn in the area during the winter months and Chinook Salmon is an Endangered species that may occur in nearby bay waters during the winter months.

#### Natural Resource Concerns and Issues for this Place / Site

122° 2

Threatened and Endangered Species (TAES):

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from May-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:350E/X.351A/B.352B.353A.354A.400C/X.401B: ESI/SFB-Maps 16,19,20

SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation, pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety of water birds, shorebirds and upland songbirds. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March.

Critical Habitat for TAES:

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

Critical Habitat for Non-protected (Non-TAES) Species:

PPOR Pre-Incident Information Summary for	San Francisco South: SF Dry Dock	2-B62	
Latitude: 37° 45.8' 122.38 Longitude: 122° 2 122.38		Type:	
County: San Francisco		Dockage	
Subsistence-use Species:	Critical Habitat for Subsistence Species:		
Essential Fish Habitat:	Historic and Cultural Resources:		
Commercial Fisheries / Species:	Recreational Species and Habitat:		
Commercial fishing from TI/YBI.		·	

# Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

6536 people per square mile are near this site.

Economic Impact on Commercial Fishing and Aquaculture:

This site has no impact on commercial fishing. This is a ship repair yard.

Economic Impact on Recreational Fishing and Marine Tourism:

This site is not used for rec fishing or marine tourism. It has some historical value as being the Oldest working civilian shipyard in U.S. In addition, to being the location of one of the largest ship repair yards on the west coast.

Economic Impact on Maritime Commerce and Shipping:

This site is a ship repair yard; it is designed to conduct repairs of large commercial and military ships.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
	Communication Center	GGNRA	(415) 561-5505	
E	Carol Bach	Port of San Francisco	(415) 274-0568	
E/C	Bill Doll Chief of Resources	San Francisco Maritime National Historical Park	(415) 859-6779	
	Daphne Hatch	GGNRA	(415) 331-0744	
	Office of Superintendent	GGNRA	(415) 561-4722	
O	City of San Francisco	San Francisco, City and County of	(415) 556-8371	
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
E	Sidonie Sansom DirHomeland Security	Port of San Francisco	(415) 274-0544	
O	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644	
T	Viktoriya Sirova EnvProtectSpecialist	US National Park Service, Golden Gate (NRA)	(415) 561-4731	
T	Brian Ullensvang Env. Programs Chief	Golden Gate National Recreation Area - NPS	(415) 561-4439	

# **Characteristics and Tactical Considerations**

Primary Jursidictional Contact: Port of San Francisco at 415-274-0400

Marine Fire Fighting Resources:

SF PIER 24: 37-42.42, 122-23.24

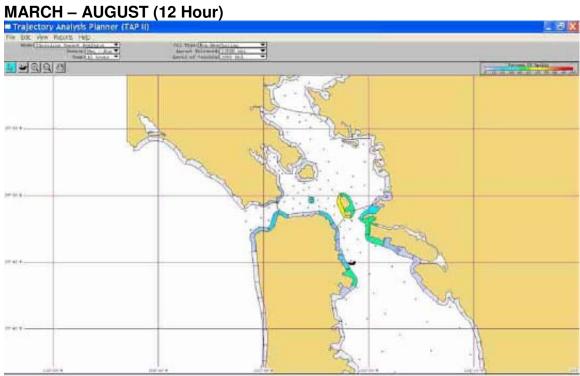
 Sector SF
 Section 8000 - 61
 October 1, 2008

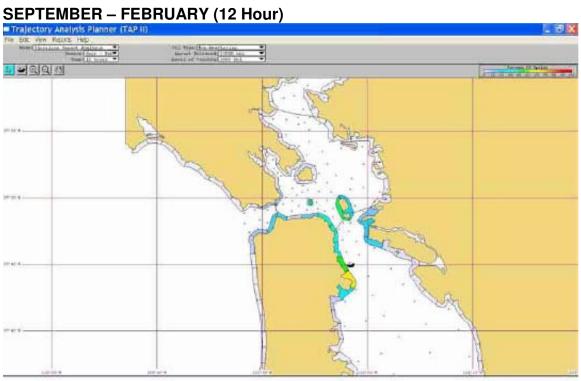
2-B62 PPOR Pre-Incident Information Summary for San Francisco South: SF Dry Dock Latitude: 37° 45.8' 122.38 Longitude: 122° 2 Type: County: San Francisco Dockage Approximate Tug Response Times 1 HOUR List of Nearby Environmentally Sensitive Sites: SFACP2: 2-350E/X,2-351A/B,2-352B,2-353A,2-400C/X,2-401B; ESI/SFB - Maps 16, 19, 2 Is Containment Possible? **Coast Pilot and Navigation Chart Information** Min Water Pilot **Prevailing Winds** Tidal Bottom Type: Max Water Currents Sea Conditions Fog Shelter From Navigational Approach Depths Severe Storms Range Depth Requirements 6 MUD 36 0 SEASONAL YES **~** Specific Site Details Site Site Name Vessel Capacities Site Capacities and Facilities ID Max Max Max Swing Room Facilities, capabilities, and any other issues or concern ContainmentPossiblities: Size Lgth Draft or Dock Face SF Dry Dock Deep 1200 36 1200 2 DRYDOCKS: 800 X 150 & 528 X 84; and 2 piers at All the piers within this place have poor containment on the 528 X 84 each pier; 1200 IS THE MAX LENGTH OF ends exposed to the Bay currents, but have signicant potential VESSEL ABLE TO BE AT THIS SITE. for containment on the north and south sides of the piers. particularly if other vessels are already positioned on the SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN opposite site of the warf. Secondary confinement of oil AND PHOENIX escaping containment is variable and but possible at the SF Dry Dock. Side tied vessels at Pier 50 enhance the likelihood SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN of secondary confinement. AND PHOENIX; OTHER FIREFIGHTING RESOURCES COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND. BAE Systems SF Ship Repair at 415-861-7447 Site Contact/Leasee/Owner:

# TRAJECTORY ANALYSIS PLANNER (TAP Model)

2-B80 (Army Street Terminal/Pier 80) Location:

2-B92 (Piers 92/94/96)





## PPOR Pre-Incident Information Summary for

122.38 **Longitude:** 122° 2

# San Francisco South: Army Street Terminal Pier 80

2-B80

Type: Dockage

County: San Francisco

Latitude: 37° 45'

**Location Description:** 

Pier 80 covers a total of 69 acres, has a wharf design load of 1,000 lbs/ft2 and provides three (40 feet MLLW) berths with a total length of 2,700 feet as well as four deep-water berths. Pier 80 is capable of handling break bulk cargoes (e.g. steel, paper and lumber) as well as containers (4 gantry cranes). On-dock warehouse space and staging areas may be available. The site is directly accessible from the open bay and has nearby access to Interstates 80 and 280.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW (i.e. away from land) whereas Summer winds are often out of the W and NW. Tidal currents in the area would dominate water flows and may be as high as 2.5knot floods (to the south) and nearly 3.5knot ebbs (to the north).

Concrete bulkhead and riprap shorelines dominate the area, though a small area of sensitive shoreline/shallow water habitat (sheltered tidal flats and salt/brackish marsh) exists immediately to the north of the site. Islais Creek - Pier 94 Saltmarsh (ACP-designated sensitive site 2-354) is located adjacent and to the south of this PPOR site. Pacific Herring may spawn in the area during the winter months and Chinook Salmon is an Endangered species that may occur in nearby bay waters and within Isiais Creek Channel.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from May-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:350E/X,351A/B,352B,353A,354A,400C/X,401B; ESI/SFB-Maps 16,19,20

SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation, pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety of water birds, shorebirds and upland songbirds. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March.

Critical Habitat for TAES:

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

Critical Habitat for Non-protected (Non-TAES) Species:

PPOR Pre-Incident Information Summary for San Francis	co South: Army Street Terminal Pier 80 2-B80			
Latitude: 37° 45' 122.38 Longitude: 122° 2 122.3767	Туре:			
County: San Francisco	Dockage			
Subsistence-use Species:	Critical Habitat for Subsistence Species:			
Essential Fish Habitat:	Historic and Cultural Resources:			
Commercial Fisheries / Species:	Recreational Species and Habitat:			
Commercial fishing from TI/YBI.				
Human Health / Safety Concerns and Economic Issues for	this Place / Site			
Human Health and Safety:	Economic Impact on Maritime Commerce and Shipping:			
The City and County of San Francisco is the fourth most populous city in California and the 14th most populous city in the United States, with a 2007 estimated population of 764,976.	Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.			
Economic Impact on Commercial Fishing and Aquaculture:	Economic Impact on Non-maritime Commerce:			
This site has no impact on commercial fishing.	Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.			

### Stakeholder List for this Place / Site

Economic Impact on Recreational Fishing and Marine Tourism:

This site is not used for rec fishing or marine tourism.

	Name / Title	Organization	Phone	more details
	Communication Center	GGNRA	(415) 561-5505	
E	Carol Bach	Port of San Francisco	(415) 274-0568	
E/C	Bill Doll Chief of Resources	San Francisco Maritime National Historical Park	(415) 859-6779	
	Daphne Hatch	GGNRA	(415) 331-0744	
	Office of Superintendent	GGNRA	(415) 561-4722	
О	City of San Francisco	San Francisco, City and County of	(415) 556-8371	
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
E	Sidonie Sansom DirHomeland Security	Port of San Francisco	(415) 274-0544	
О	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644	
T	Viktoriya Sirova EnvProtectSpecialist	US National Park Service, Golden Gate (NRA)	(415) 561-4731	
T	Brian Ullensvang Env. Programs Chief	Golden Gate National Recreation Area - NPS	(415) 561-4439	

Other Economic Impacts:

large metropolitian areas due to a fear factor.

## **Characteristics and Tactical Considerations**

Primary Jursidictional Contact: Sector SF PORT OF SAN FRANCISCO AT 415-

Marine Fire Fighting Resources: Section 8000 - 65

SF PIER 24: 37-47.42, 122-23.24

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any

October 1, 2008

PPOR Pre- Latitude: 37° 4		nformati 8 Longitud			ary for 122.3767	San Fra	ncisco South	n: Army S	treet Ter	minal Pier 80	<b>2-B80</b> Type:
County: San Fra		o Longitud	g. 122		122.5707						Dockage
		274-040	0								
Approximate Tug	Response Tim	es 1 HOUF	}								
List of Nearby En	vironmentally S	Sensitive Sites	SFA	CP2:	2-350E/X,2	2-351A/B,	2-352B,2-353A,2	-400C/X,2-4	01B; ESI/S	FB - Maps 16, 19, 2 Is Contain	nment Possible?
Coast Pilo	and Navig	ation Cha	rt Inforr	natio	n						
Prevailing Winds	Tidal Range	Bottom Typ	e: Max V De		Min Water Depths	Currents	Sea Conditions	Fog	Shelter Fro Severe Stor		Pilot Requirements
W	6	MUD		37	0		SEASONAL YES			<u> </u>	
Specific Si	te Details										
Site Site Name			Vessel Ca	pacitie	es	Site	Capacities and F	acilities			
ID			Max Ma Size Lg		0		es, capabilities, and a	any other issues	s or concern	ContainmentPossiblities:	
80 Army Street Terminal Pier 80 Deep 1500 37 150			AT TH SF PIE AND P SF PIE AND P COME	1500 IS THE MAX LENGTH OF VESSEL ABLE TO BE AT THIS SITE.  All the piers within this place have poends exposed to the Bay currents, but for containment on the north and sou particularly if other vessels are alread opposite site of the warf. Secondary escaping containment is variable and except at the SF Dry Dock.  SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX; OTHER FIREFIGHTING RESOURCES COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND.			out have signicant potential uth sides of the piers, ady positioned on the y confinement of oil				

## PPOR Pre-Incident Information Summary for San Francisco South: PIER 92/94/96

122.37 **Longitude:** 122° 2

2-B92 Type:

Latitude: 37° 44.6' County: San Francisco

Dockage

# **Location Description:**

Piers 92, 94 and 96 cover a total of 76 acres, have a wharf design load of 800 lbs/ft2 and provides three (40 feet MLLW) berths with a total length of 2,450 feet. Pier 92 is capable of handling breakbulk and liquid cargoes whereas Piers 94 and 96 are capable of handling containerized and non-containerized cargos. The site is directly accessible from the open bay and has nearby access to Interstates 80 and 280.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW (i.e. away from land) whereas Summer winds are often out of the W and NW. Tidal currents in the area would dominate water flows and may be as high as 2.5knot floods (to the south) and nearly 3.5knot ebbs (to the north).

Concrete bulkhead and riprap shorelines dominate the area, though small areas of sensitive shoreline/shallow water habitat (sheltered tidal flats and salt/brackish marsh) exist immediately to the south of the site. Heron's Head Park - India Basin (ACP-designated sensitive site 2-353) is located nearby and to the south of the site. This sensitive site includes California Seablite, a Federally-listed Endangered shoreline plant species. In addition, Chinook Salmon are an Endangered species that may occur in nearby bay waters during the winter months.

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from May-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:350E/X,351A/B,352B,353A,354A,400C/X,401B; ESI/SFB-Maps 16.19.20

SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation, pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety of water birds, shorebirds and upland songbirds. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March.

Critical Habitat for TAES:

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

Critical Habitat for Non-protected (Non-TAES) Species:

PPOR Pre-Incident Information Summary for San Francisco	South: PIER 92/94/96 2-B92		
Latitude: 37° 44.6' 122.37 Longitude: 122° 2 122.3708	Type:		
County: San Francisco	Dockage		
Subsistence-use Species:	Critical Habitat for Subsistence Species:		
Essential Fish Habitat:	Historic and Cultural Resources:		
Commercial Fisheries / Species:	Recreational Species and Habitat:		
Commercial fishing from TI/YBI.			
Human Health / Safety Concerns and Economic Issues for the	nis Place / Site		
Human Health and Safety:	Economic Impact on Maritime Commerce and Shipping:		
The City and County of San Francisco is the fourth most populous city in California and the 14th most populous city in the United States, with a 2007 estimated population of 764,976.	Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.		

Economic Impact on Commercial Fishing and Aquaculture:

This site has no impact on commercial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

This site is not used for rec fishing or marine tourism.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

# Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
	Communication Center	GGNRA	(415) 561-5505	
E	Carol Bach	Port of San Francisco	(415) 274-0568	
E/C	Bill Doll Chief of Resources	San Francisco Maritime National Historical Park	(415) 859-6779	
	Daphne Hatch	GGNRA	(415) 331-0744	
	Office Superintendent's	GGNRA	(415) 561-4722	
O	City of San Francisco	San Francisco, City and County of	(415) 556-8371	
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
E	Sidonie Sansom DirHomeland Security	Port of San Francisco	(415) 274-0544	
O	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644	
T	Viktoriya Sirova EnvProtectSpecialist	US National Park Service, Golden Gate (NRA)	(415) 561-4731	
T	Brian Ullensvang Env. Programs Chief	Golden Gate National Recreation Area - NPS	(415) 561-4439	

# **Characteristics and Tactical Considerations**

**Primary Jursidictional Contact:** Sector SF

Port of San Francisco at 415-274-0400

Marine Fire Fighting Resources: Section 8000 - 68

SF PIER 24: 37-47.42, 122-23.24

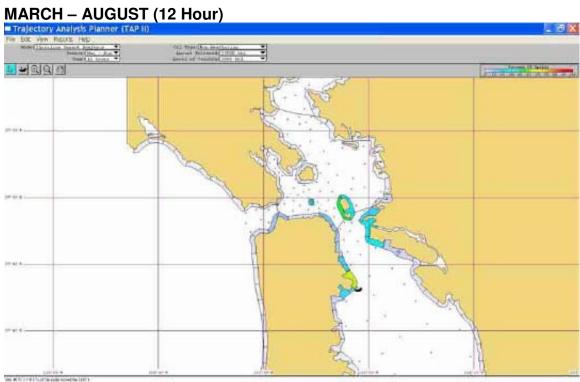
October 1, 2008

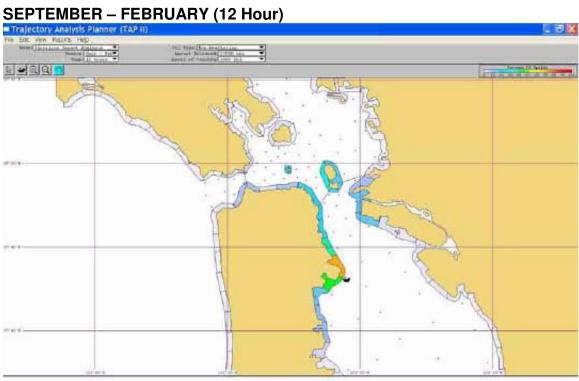
San Francisco South: PIER 92/94/96 2-B92 PPOR Pre-Incident Information Summary for Latitude: 37° 44.6' 122.37 Longitude: 122° 2 122.3708 Type: County: San Francisco Dockage Approximate Tug Response Times 1 HOUR List of Nearby Environmentally Sensitive Sites: SFACP2: 2-350E/X,2-351A/B,2-352B,2-353A,2-400C/X,2-401B; ESI/SFB - Maps 16, 19, 2 | Is Containment Possible? **Coast Pilot and Navigation Chart Information** Pilot Prevailing Winds Tidal Bottom Type: Max Water | Min Water Currents Sea Conditions Fog Shelter From Navigational Approach Depth Depths Severe Storms Requirements Range W 6 MUD 38 0 SEASONAL **V Specific Site Details** Site Site Name Vessel Capacities Site Capacities and Facilities ID Max Max Swing Room Facilities, capabilities, and any other issues or concern Max ContainmentPossiblities: Draft or Dock Face Size Lgth Deep 1200 38 2450 1200 IS THE MAX LENGTH OF VESSEL ABLE TO BE PIER 92/94/96 All the piers within this place have poor containment on the AT THIS SITE. ends exposed to the Bay currents, but have signicant potential for containment on the north and south sides of the piers, SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN particularly if other vessels are already positioned on the AND PHOENIX opposite site of the warf. Secondary confinement of oil escaping containment is variable and not particularly good except at the SF Dry Dock. SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX; OTHER FIREFIGHTING RESOURCES COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND. Site Contact/Leasee/Owner: Ports America at 415-695-2400

# TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-B99 (Hunters Point)







122.36 **Longitude:** 122° 2

San Francisco South: Hunters Point (y-HL)

**2-B99**Type:

Latitude: 37° 43'
County: San Francisco

Dockage

### **Location Description:**

Hunters Point is a large, former Naval Shipyard encompassing 638 acres, some of which is listed on the National Priorities (Superfund) List. The site is no longer an active shipyard facility but does provide numerous piers possibly for lay berth (long-term dockage). A naval restricted area is offshore of Hunters Point. The site is directly accessible from the open bay and has nearby access to Interstates 80 and 280.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW (i.e. away from land) whereas Summer winds are often out of the W and NW. Tidal currents in the area would dominate water flows and may be as high as 2.5knot floods (to the south) and near 3.5knot ebbs (to the north).

Concrete bulkhead and riprap shorelines dominate the area, though areas of sensitive shoreline/shallow water habitat (sheltered tidal flats and salt/brackish marsh) exist to the north and south of the site. Heron's Head Park - India Basin (ACP-designated sensitive site 2-353) and South Basin, Hunters Point (ACP site 2-352) are located near this PPOR site. Heron's Head Park - India Basin includes California Seablite, a Federally-listed Endangered shoreline plant species. South Basin, Hunters Point includes high concentrations of waterfowl (1,000's) and migratory shorebirds during the fall and winter months. In addition, California Brown Pelican and Chinook Salmon are both Endangered species that may occur in nearby bay waters.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from May-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:350E/X,351A/B,352B,353A,354A,400C/X,401B; ESI/SFB-Maps 16,19,20

SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation, pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety of water birds, shorebirds and upland songbirds. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers

Critical Habitat for TAES:

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

Critical Habitat for Non-protected (Non-TAES) Species:

Sector SF Section 8000 - 71 October 1, 2008

PPOR Pre-Incident Information Summary for Latitude: 37° 43' 122.36 Longitude: 122° 2 122.3583  County: San Francisco	Francisco South: Hunters Point (y-HL)  2-B99  Type: Dockage
August-March.	
Subsistence-use Species:	Critical Habitat for Subsistence Species:
Essential Fish Habitat:	Historic and Cultural Resources:
Commercial Fisheries / Species:	Recreational Species and Habitat:
Commercial fishing from TI/YBI.	
Human Health / Safety Concerns and Economic Iss	sues for this Place / Site
Human Health and Safety:	Economic Impact on Maritime Commerce and Shipping:
population of 764,976 within SF.	none
Economic Impact on Commercial Fishing and Aquaculture:	Economic Impact on Non-maritime Commerce:
none	Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.
Economic Impact on Recreational Fishing and Marine Tourism:	Other Economic Impacts:
none	Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

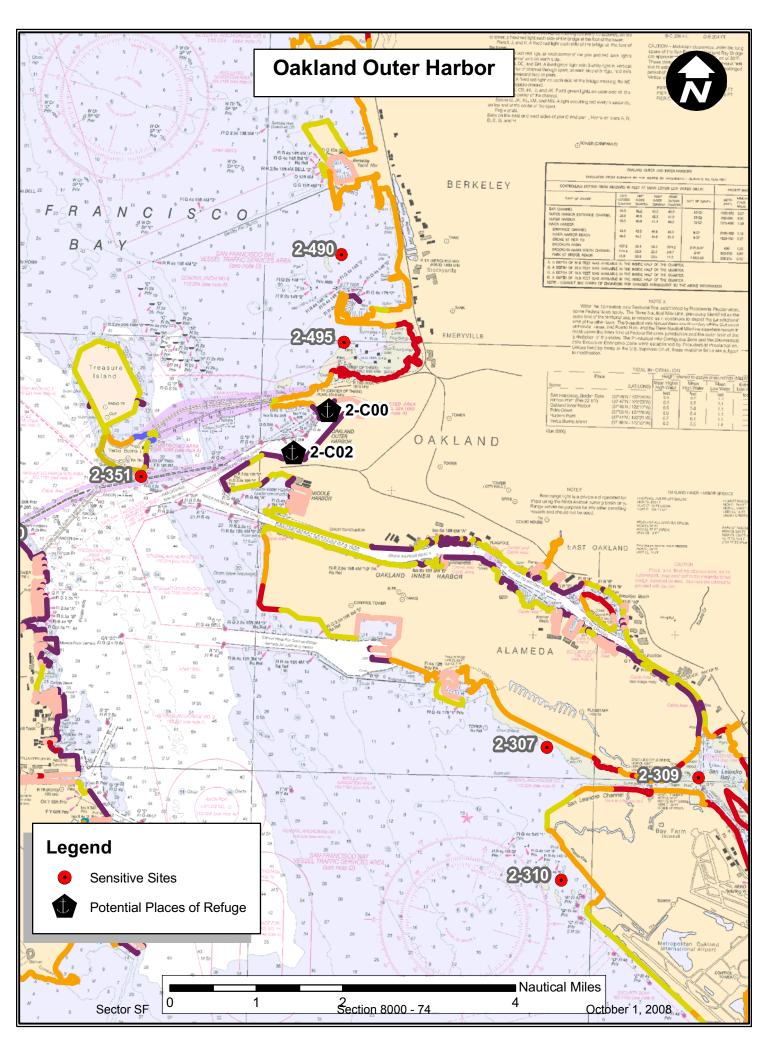
	Name / Title	Organization	Phone	more details
	Communication Center	GGNRA	(415) 561-5505	
E	Carol Bach	Port of San Francisco	(415) 274-0568	
E/C	Bill Doll Chief of Resources	San Francisco Maritime National Historical Park	(415) 859-6779	
	Daphne Hatch	GGNRA	(415) 331-0744	
	Office Superintendent's	GGNRA	(415) 561-4722	
О	City of San Francisco	San Francisco, City and County of	(415) 556-8371	
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
E	Sidonie Sansom DirHomeland Security	Port of San Francisco	(415) 274-0544	
О	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644	
T	Viktoriya Sirova EnvProtectSpecialist	US National Park Service, Golden Gate (NRA)	(415) 561-4731	
Т	Brian Ullensvang Env. Programs Chief	Golden Gate National Recreation Area - NPS	(415) 561-4439	

### **Characteristics and Tactical Considerations**

Primary Jursidictional Contact: City of San Francisco Marine Fire Fighting Resources: SF PIER 24: 37-47.42, 122-23.24

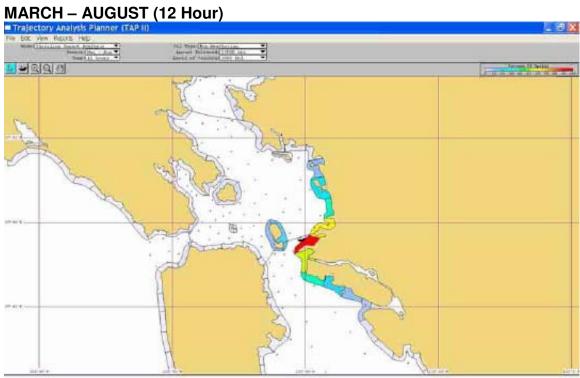
 Sector SF
 Section 8000 - 72
 October 1, 2008

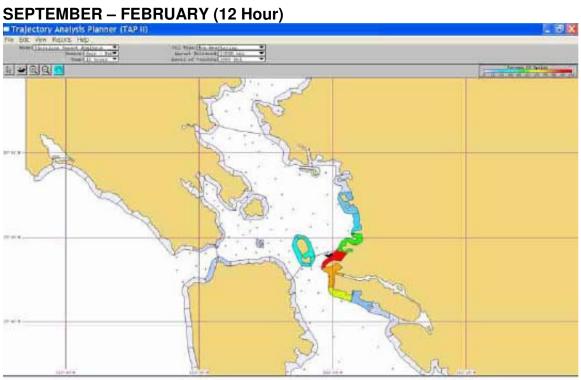
PPC	R Pre-In	ncident	Informa	ation	Sum	mary	for	San Fra	ncisco Sou	th: Hunte	rs Point (y	-HL)	2-B99
Latitu	<b>de</b> : 37° 43	' 122.	36 Longit	ude:	122° 2	122.3	583					•	Type:
County	y: San Fran	cisco											Dockage
Approx	ximate Tug R	Response Ti	mes 2 HO	URS									
List of	Nearby Envi	ronmentally	Sensitive S	ites:	SFACP	2: 2-35	50E/X,	2-351A/B,	2-352B,2-353A	,2-400C/X,2	-401B ESI/SF	B - Maps 16, 19, 2 Is Conta	ainment Possible?
Co	oast Pilot	and Navi	gation CI	hart I	nforma	tion						_	
Preva	iling Winds	Tidal Range	Bottom	Type:	Max Wat Depth		Water epths	Currents	Sea Conditions	Fog	Shelter Fro Severe Stor	The state of the s	Pilot Requirements
W		6	MUD		;	30	0			SEASONA	L YES		<b>✓</b>
Sp	ecific Site	e Details											
Site	Site Name			Ves	sel Capa	cities		Site	Capacities and	Facilities			
ID				Max Siz			Swing Ro r Dock F		es, capabilities, and	d any other issu	ues or concern	ContainmentPossiblities:	
99	Hunters Poir	nt (y-HL)		Dee	p   800	30		AT TH SF PIE AND P SF PIE AND P	THE MAX LENGT IS SITE. ER 22 1/2 IS HOME HOENIX ER 22 1/2 IS HOME HOENIX; OTHER FROM FOSS/CHE	OF FIRE BOA OF FIRE BOA FIREFIGHTING	AT GUARDIAN AT GUARDIAN G RESOURCES	All the piers within this place have ends exposed to the Bay currents, for containment on the north and s particularly if other vessels are alre opposite site of the warf. Hunters I opportunities for containment withit there is little current. Secondary c containment is variable and not pa SF Dry Dock.	but have signicant potential but have signicant potential but hid sides of the piers, eady positioned on the Point has particularly good in the finger piers where confinement of oil escaping
Cito C	ontact/Lease	- 2 / O - 1 /						RICHN		EVRUN/UAKLA	AND AND	SF DIY DOCK.	
SILE C	oniaci/Lease	e/Owner.											



### TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-C00 (Berths 55-68) 2-C02 (Berths 20-38)





### PPOR Pre-Incident Information Summary for 122.32 Longitude:

Oakland Outer Harbor: Berths 55-68

2-C00 Type:

Latitude: 37° 49.2' County: Alameda

Dockage

### **Location Description:**

Berths 55-68 of the Port of Oakland occupy a total of 396 acres and approximately 10,760 linear feet of berthing space managed by multiple operators. All berths are capable of handling containerized cargo and some have rail access. The site is directly accessible from the open bay and has nearby access to Interstates 80, 580, 880 and 980,

Berths 55, 56 – Total length 2,400 ft (50 MLLW)

Berths 57-59 – Total length 3,600 ft (50 MLLW). Also capable of roll/on roll/off cargoes

122° 1

Berths 60-63 - Total length 2,743ft (42 MLLW). 48,000 sqft of covered storage available on-site

Berths 67, 68 – Total length 2,016 ft (42 MLLW)

Though winds throughout the bay are geographically variable, Spring and Summer winds in this area are often out of the SW to NW (i.e. towards land). Tidal currents in the area would dominate water flows through the Oakland Estuary (a restricted waterway) and may be as high as 1.2knot floods (to the east) and over 1.6knot ebbs (to the west).

Concrete bulkhead and riprap shorelines dominate the area with little/no sensitive shoreline habitat or shallow water habitats known nearby. However, Chinook Salmon is an Endangered species that may occur in nearby bay waters.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

Alameda NAS-(S/F E/E) California least tern, present April-August, nest May-August, restoration area; (S/F E/E) California brown pelican, present May-November.

Alameda Eelgrass Bed-(S/F E/E) California brown pelican, roost/forage in area.

San Leandro Bay/Arrowhead Marsh-(S/F E/E) California clapper rail present year-round and nests March-July, (S-T) black rail nests March-May, (S/F E/E) salt marsh harvest mouse, (S/F T/T) salt marsh wandering shrew present year-round, (SSC) salt marsh common yellowthroat present year-round. Also, (S/F-E/E) California brown pelican, (S/F-E/E) California least tern forage in area.

Bay Farm Island (F/T) Western snowy plover nest present from February-September, rare plant alkali milk-vetch present year round.

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare Sector SF Section 8000 - 76

Critical Habitat for TAES:

Arrowhead Marsh supports number of listed/sensitive species and currently has the highest density of breeding clapper rails in San Francisco Bay. Emeryville lagoon/mudflat provides pickleweed habitat for listed species.

### 2-C00 PPOR Pre-Incident Information Summary for Oakland Outer Harbor: Berths 55-68 Latitude: 37° 49.2' 122.32 **Longitude:** 122° 1 Type: County: Alameda Dockage plant). Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: SFACP2: 307C/A,309A,310C/A,351A/B,490A,495A; ESI/SFB-Maps 17,18,21 Alameda NAS eelgrass, harbor seal haulout area. Alameda eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area yearround. San Leandro Bay/Arrowhead Marsh supports listed species, rare/sensitive plants, wading birds, shorebirds and waterfowl. Bay Farm Island eelgras beds support herring spawning during winter, seabirds/ shorebirds utilize area year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants. Subsistence-use Species: Critical Habitat for Subsistence Species: Essential Fish Habitat: Historic and Cultural Resources: Cultural/historic resources likely present in/around Arrowhead Marsh and Bay Farm Island.

### Commercial Fisheries / Species:

Commercial fishing from TI/YBI. Herring spawning in shorelines of Berkeley and Emeryville eelgrass beds.

Recreational Species and Habitat:

Elsie Roemer Bird Sanctuary located southeast end of Crown Beach.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Oakland is the sixth-most-populous metropolitan area in the United States. Based on 2006 statistical data, Oakland is the 44th-largest city in the United States. The California Department of Finance estimates that Oakland's population on January 1, 2008 was 420,183.

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry. Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can ruin recreational and commercial fishing. Port of Oakland patrons may be affected.

Economic Impact on Recreational Fishing and Marine Tourism:

Oakland is largely a container port and not normally known for recreational fishing. Jack London Square is the central tourist area with a maritime

Economic Impact on Maritime Commerce and Shipping:

Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any

Sector SF Section 8000 - 77 October 1, 2008

# PPOR Pre-Incident Information Summary for Latitude: 37° 49.2' 122.32 Longitude: 122° 1 122.3167 County: Alameda Oakland Outer Harbor: Berths 55-68 Type: Dockage

nexus. San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can ruin recreational and commericial fishing. Marine Tourism might be affected as a result of a Places of Refuge incident.

large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
O	State Water Project	CA Dept. of Water Resources	(916) 574-2714	
E	City of Alameda, Parks	Alameda, City of, Dept. of Parks and Recreation	(510) 748-4565	
E/T	Michael Avalos Park Supervisor	East Bay Regional Park District	(510) 521-7090	
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833	
E/T	Nigel Harold Park Supervisor	East Bay Regional Park district	(510) 272-4810	
T	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595	
T	Damian Higgins	U.S. Fish & Wildlife Service	(916) 414-6548	
Е	Clif Marccetti Marina Manager	Berkeley, City of, Dept. of Parks	(510) 981-6737	
Е	Jody Zaitlin Environmental Office	Port of Oakland	(510) 627-1179	

### **Characteristics and Tactical Considerations**

Primary Jursidictional Contact:	Port of Oakland at (510) 272-1100	Marine Fire Fighting Resources:	SF PIER 24: 37-47.42, 122-2	23.24						
Approximate Tug Response Times	Approximate Tug Response Times 30 MINUTES									
List of Nearby Environmentally Sen	sitive Sites: SFACP2: 307C/A, 309A, 310C/	/A, 351A/B, 490A, 495A; ESI/S	FB - Maps17,18,21	Is Containment Possible?						

### **Coast Pilot and Navigation Chart Information**

Prevailing Winds	Tidal Range	Bottom Type:	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
W	6		45	0		S	EASONAL	YES		✓

### **Specific Site Details**

	Site Name	Vesse	l Capa	acities		Site Capacities and Facilities	
ID				9	Facilities, capabilities, and any other issues or concern	ContainmentPossiblities:	
		Size	Lgth	Draft	or Dock Face		
00	Berths 55-68	Deep	1500	45	2000	1500 IS THE MAX LENGTH OF VESSEL ABLE TO BE	All the piers within this place have good primary containment
		•				AT THIS SITE.	potential since there is little current here. Due to the minimal
						SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN	currents, the potential for secondary confinement of oil escaping primary containment is probably better here than any other location in SF Bay.
						SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX; OTHER FIREFIGHTING RESOURCES	

RICHMOND.

COME FROM FOSS/CHEVRON/OAKLAND AND

PPOR Pre-Incident Information Summary for Oakland Outer Harbor: Berths 55-68	2-C00
Latitude: 37° 49.2' 122.32 Longitude: 122° 1 122.3167	Type:
County: Alameda	Dockage
Site Contact/Leasee/Owner:	

### PPOR Pre-Incident Information Summary for 122.33 Longitude:

Oakland Outer Harbor: Berths 20-38

2-C02 Type:

Latitude: 37° 48.7' County: Alameda

Dockage

### **Location Description:**

Berths 20-38 of the Port of Oakland occupy a total of 364 acres and approximately 12,200 linear feet of berthing space managed by multiple operators. All berths are capable of handling containerized cargo and some have rail access. The site is directly accessible from the open bay and has nearby access to Interstates 80, 580, 880 and 980,

Berths 20, 21 – Total length 1,355 ft (42 MLLW). 112,000 sqft covered storage available on-site

122.325

122° 1

Berth 22 – 857 ft (42 MLLW)

Berth 23 - 951 ft (42 MLLW)

Berth 24 -1,290 ft (42MLLW)

Berths 25-26 - Total length 1,050ft (42 MLLW)

Berth 30 – 1,075ft (42 MLLW). Also capable of heavy lift and breakbulk cargoes

Berths 32-34 - Total length 2,406ft (37MLLW). Also capable of breakbulk, roll/on roll/off cargoes. 39,800 sqft of covered storage available on-site.

Berth 35, 37 – Total length 2,351ft (42 MLLW)

Berth 38 – 862 ft (37 MLLW)

Though winds throughout the bay are geographically variable, Spring and Summer winds in this area are often out of the SW to NW (i.e. towards land). Tidal currents in the area would dominate water flows and may be as high as 2.2knot floods (to the south) and near 2.5knot ebbs (to the north).

Concrete bulkhead and riprap shorelines dominate the area with little/no sensitive shoreline habitat or shallow water habitats known nearby. However, Chinook Salmon is an Endangered species that may occur in nearby bay waters.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

Alameda NAS-(S/F E/E) California least tern, present April-August, nest May-August, restoration area; (S/F E/E) California brown pelican, present May-November.

Alameda Eelgrass Bed-(S/F E/E) California brown pelican, roost/forage in area.

San Leandro Bay/Arrowhead Marsh-(S/F E/E) California clapper rail present year-round and nests March-July, (S-T) black rail nests March-May, (S/F E/E) salt marsh harvest mouse, (S/F T/T) salt marsh wandering shrew present year-round, (SSC) salt marsh common yellowthroat present year-round. Also, (S/F-E/E) California brown pelican, (S/F-E/E) California least tern forage in area.

Bay Farm Island (F/T) Western snowy plover nest present from February-September, rare plant alkali milk-vetch present year round.

Critical Habitat for TAES:

Arrowhead Marsh supports number of listed/sensitive species and currently has the highest density of breeding clapper rails in San Francisco Bay. Emeryville lagoon/mudflat provides pickleweed habitat for listed species.

### 2-C02 PPOR Pre-Incident Information Summary for Oakland Outer Harbor: Berths 20-38 Latitude: 37° 48.7' 122.33 Longitude: 122° 1 122.325 Type: County: Alameda Dockage YBI-(S/F E/E) peregrine falcon present year-round, nest March-August. Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare plant). Sensitive Non-protected (Non-TAES) Species: Critical Habitat for Non-protected (Non-TAES) Species: SFACP2: 307C/A,309A,310C/A,351A/B,490A,495A; ESI/SFB-Maps 17,18,21 Alameda NAS eelgrass, harbor seal haulout area, Alameda eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area yearround. San Leandro Bay/Arrowhead Marsh supports listed species, rare/sensitive plants, wading birds, shorebirds and waterfowl. Bay Farm Island eelgras beds support herring spawning during winter, seabirds/ shorebirds utilize area year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants. Subsistence-use Species: Critical Habitat for Subsistence Species: Essential Fish Habitat: Historic and Cultural Resources: Cultural/historic resources likely present in/around Arrowhead Marsh and Bay Farm Island.

Commercial Fisheries / Species:

Commercial fishing from TI/YBI. Herring spawning in shorelines of Berkeley and Emeryville eelgrass beds.

Recreational Species and Habitat:

Elsie Roemer Bird Sanctuary located southeast end of Crown Beach.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Oakland is the sixth-most-populous metropolitan area in the United States. Based on 2006 statistical data, Oakland is the 44th-largest city in the United States. The California Department of Finance estimates that Oakland's population on January 1, 2008 was 420,183.

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry. Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Port of Oakland patrons may be affected.

Economic Impact on Maritime Commerce and Shipping:

Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

Section SF Section 8000 - 81 October 1, 2008

#### PPOR Pre-Incident Information Summary for 122.33 Longitude: 122° 1

Oakland Outer Harbor: Berths 20-38

2-C02

Latitude: 37° 48.7' County: Alameda

Type: Dockage

Economic Impact on Recreational Fishing and Marine Tourism:

Oakland is largely a container port and not normally known for recreational fishing. Jack London Square is the central tourist area with a maritime nexus. San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commericial fishing. Marine Tourism might be affected as a result of a Places of Refuge incident. Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
O	State Water Project	CA Dept. of Water Resources	(916) 574-2714	
E	City of Alameda, Parks	Alameda, City of, Dept. of Parks and Recreation	(510) 748-4565	
E/T	Michael Avalos Park Supervisor	East Bay Regional Park District	(510) 521-7090	
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833	
E/T	Nigel Harold Park Supervisor	East Bay Regional Park district	(510) 272-4810	
T	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595	
T	Damian Higgins	U.S. Fish & Wildlife Service	(916) 414-6548	
E	Clif Marccetti Marina Manager	Berkeley, City of, Dept. of Parks	(510) 981-6737	
Е	Jody Zaitlin Environmental Office	Port of Oakland	(510) 627-1179	

### Characteristics and Tactical Considerations

**Primary Jursidictional Contact:** Port of Oakland 510-627-1100 Marine Fire Fighting Resources:

SF PIER 24: 37-47.42. 122-23.24

Approximate Tug Response Times 30 MINUTES

List of Nearby Environmentally Sensitive Sites: SFACP2: 307C/A, 309A, 310C/A, 351A/B, 490A, 495A; ESI/SFB - Maps17,18,21

Is Containment Possible?

**V** 

### **Coast Pilot and Navigation Chart Information**

Prevailing Winds	Tidal Range	Bottom Type:	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach
NW & winter		MUD	45	0			SEASONAL	vulnerable to S	

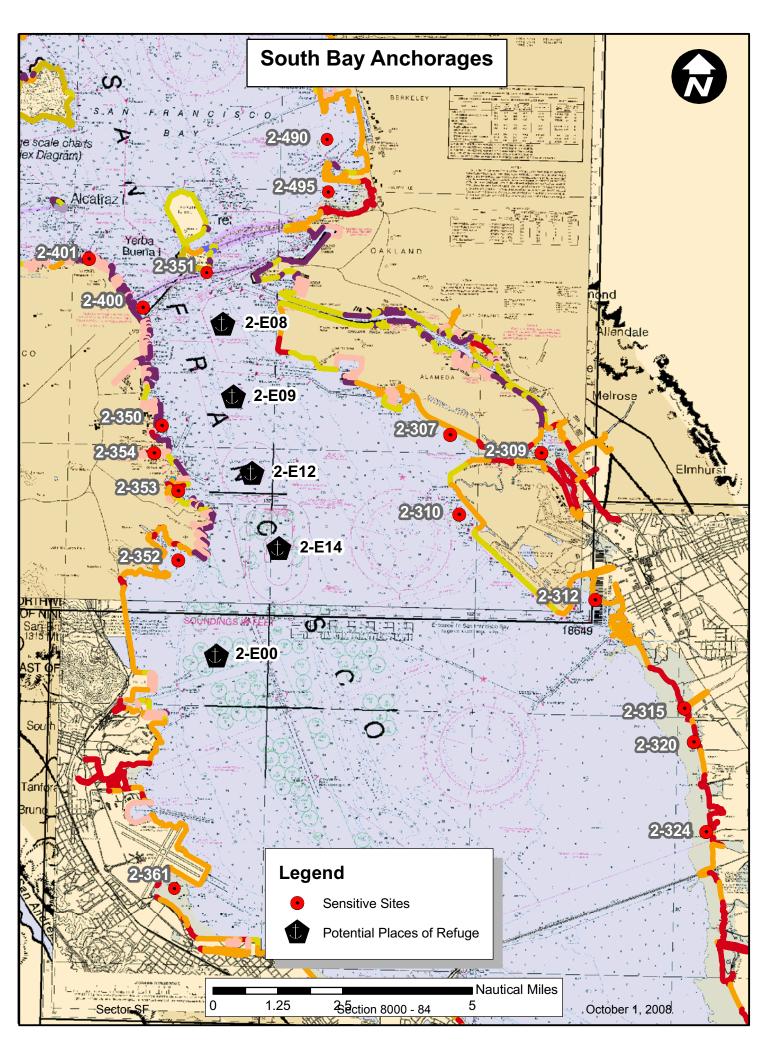
Pilot Requirements **~** 

### **Specific Site Details**

	Site Name	Vessel Capacities				Site Capacities and Facilities				
ID					Swing Room or Dock Face	, , , , ,	ContainmentPossiblities:			
01	Berths 20-38	Deep	1500	45	2000	rail berth 30, container & heavy lift all	All the piers within this place have good primary containment potential since there is little current here. Due to the minimal			
							currents, the potential for secondary confinement of oil escaping primary containment is probably better here than any other location in SF Bay.			
						SE PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN	· · · · · · · · · · · · · · · · · · ·			

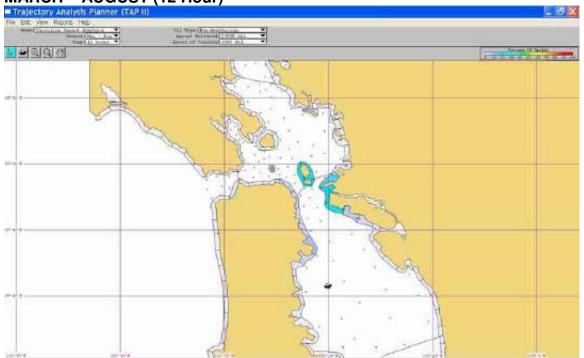
AND PHOENIX: OTHER FIREFIGHTING RESOURCES Section 8000 - 82

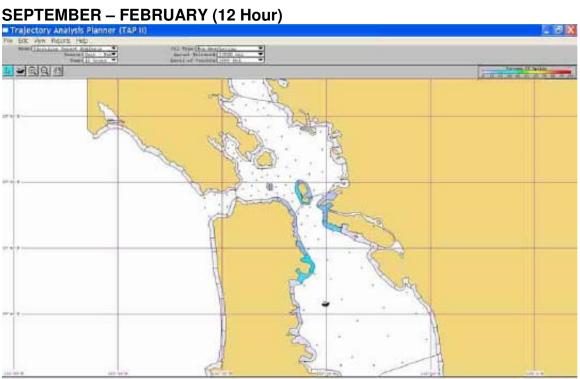
PPOR Pre-Inci	dent Information	n Sumn	nary for	Oakland Outer Harbor: Berths 20-38	2-C02
Latitude: 37° 48.7'	122.33 Longitude:	122° 1	122.325	]	Type:
County: Alameda				-	Dockage
				COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND.	
Site Contact/Leasee/Ov	vner: VTS for co	ontacts			



### TRAJECTORY ANALYSIS PLANNER (TAP Model) **Location: 2-E00 (Undesignated Anchorages)**







### PPOR Pre-Incident Information Summary for 122.35 Longitude:

### **South Bay Anchorages: Undesignated Anchorages**

2-E00

Type: Anchorage

County: San Francisco-Alameda

Latitude: 37° 41'

### **Location Description:**

Undesignated anchorages have charted depths to approximately 35 feet (MLLW).

122° 2

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW whereas Summer winds are often out of the NW and N. Though winds throughout the bay are geographically variable, Summer winds are often out of the W and NW whereas Spring winds in this area are typically out of the W thru N. Tidal currents are typically are generally weaker in broad parts of the Bay.

Marshes in this area support populations of endangered California Clapper Rail and Salt Marsh Harvest mice and threatened Western Snowy Plover. Numerous ACP-designated sensitive sites are located throughout the Central Bay and may be threatened by releases from this PPOR site.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

(East Shoreline)

Alameda NAS-(S/F E/E) California least tern, present April-August, nest May-August, restoration area; (S/F E/E) California brown pelican, present May-November.

Alameda Eelgrass Beds-(S/F E/E) California brown pelican, roost/forage in area.

San Leandro Bay/Arrowhead Marsh-(S/F E/E) California clapper rail present year-round and nests March-July, (S-T) black rail nests March-May, (S/F E/E) salt marsh harvest mouse. (S/F T/T) salt marsh wandering shrew present year-round, (SSC) salt marsh common yellowthroat present year-round. Also, (S/F-E/E) California brown pelican, (S/F-E/E) California least tern forage in area.

Bay Farm Island (F/T) Western snowy plover nest present from February-September, rare plant alkali milk-vetch present vear-round.

Oyster Bay Marshes-(F/T) Western snowy plover nest present from February-September: (S/F T/T) salt marsh wandering shrew present year-round.

San Lorenzo Creek/Bunker & North marshes - (S/F E/E) California clapper rail present year-round and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. (S/F E/E) California least tern forage in area.

Oro Loma, Frank's Dump West & Triangle marshes - (S/F E/E) California clapper rail and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest Sector SF Section 8000 - 86

Critical Habitat for TAES:

Arrowhead Marsh supports a number of listed/sensitive species and currently has the highest density of breeding California clapper rails in San Francisco Bay. Emeryville lagoon/mudflat provides pickleweed habitat for listed species. East Bay Regional Park District shoreline salt marshes support number of listed species.

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

October 1, 2008

### PPOR Pre-Incident Information Summary for 122.35 Longitude:

### **South Bay Anchorages: Undesignated Anchorages**

2-E00

Type: Anchorage

County: San Francisco-Alameda

Latitude: 37° 41'

mouse present year-round. S/F E/E California least tern and (F/T) western snowy plover forage in area.

122° 2

122.3542

Cogswell, Hayward & HARD marshes - (S/F E/E) California clapper rail present year-round, forage and nest; (S/F E/E) salt marsh harvest mouse present vear-round: (S/F E/E) California least tern present April-August, nests May-August: (F/T) western snowy plover forage and nest in salt-pond area.

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare plant).

(West Shoreline)

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from May-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Colma Creek area marshes - (S/F E/E) California clapper rail present yearround, nesting March-July.

Airport Mudflat - (S/F E/E) California clapper rail present year-round in marsh in back of cove, nesting March-July

(S/F E/E) California clapper rail present year-round in several of small strip marshes between Colma Creek and the Bair/Greco area, nesting March-July.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,3 53A,354A,361A,400C/X,401B,490A,495A; ESI/SFB-Maps 16,17,18,19,20, 21,22

(East Bay Shoreline) Alameda NAS eelgrass, harbor seal haulout area. Alameda eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area year-round. San Leandro Bay/Arrowhead Marsh supports listed species, rare/sensitive plants, wading birds, shorebirds and waterfowl. Bay Farm Island eelgrass beds support herring spawning

Critical Habitat for Non-protected (Non-TAES) Species:

East Bay Regional Park District shoreline salt marshes have extensive cordgrass and mudflats which support listed and non-listed species.

In general, extensive mudflats on both east and west bay shorelines support heavy use by variety of shorebirds (e.g., herons and egrets), wading and diving birds, and harbor seals. Open waters support heavy use by migratory waterfowl. Sloughs, mudflats support fish, shellfish, infauna.

Sector SF Section 8000 - 87 October 1, 2008

**South Bay Anchorages: Undesignated Anchorages** 

2-E00 Type:

Latitude: 37° 41'

122.35 **Longitude:** 122° 2

County: San Francisco-Alameda

Anchorage

during winter, seabirds/shorebirds utilize area year-round. Oyster Bay marshes and mudflat support migratory waterfowl and shorebirds. San Lorenzo Creek/Bunker & North marshes and Oro Loma, Frank's Dump West & Triangle marshes and Cogswell, Hayward, HARD marshes support heavy use by migratory waterfowl and variety of shorebirds, wading (e.g., heron, egret nesting), and diving (Caspian terns) birds. The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants.

(West Bay Shoreline) SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June. bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation, pickleweed marsh.saltmarsh ponds/lagoons.mudflats supporting variety of water birds, shorebirds and upland songbirds. Airport Mudflat and cove serves as feeding/resting area for waterfowl, wading birds and shorebirds, with highest use in winter. SF Waterfront herring spawning in winter, birds roost and forage vear-round. Pier 39 sea lion haulout vear-round. highest numbers August-March.

Subsistence-use Species:

Critical Habitat for Subsistence Species:

Essential Fish Habitat:

Bay fish species move in/out of channels and ponds in these areas.

Historic and Cultural Resources:

Cultural/historic resources likely present in/around Arrowhead Marsh and Bay Farm Island. EBRPD shoreline Ohlone cultural sites in area. Hayward Landing is historic site.

Commercial Fisheries / Species:

Commercial fishing from TI/YBI. Herring spawning in shorelines of Berkeley and Emeryville eelgrass beds.

Recreational Species and Habitat:

Elsie Roemer Bird Sanctuary located southeast end of Crown Beach.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Economic Impact on Maritime Commerce and Shipping:

South Bay Anchorages are near population centers of San Francisco (764,976), Oakland (420,183) and Alameda (72,259)--population are provided in parenthesis. Sector SF

May affect shipping lanes to Alameda Point, Entrance to Oakland Inner Harbor Channel and the Port of Redwood City. Redundant piers and accommodations exist to counter problems that may arise as a result of a Section 8000 - 88 October 1, 2008

# PPOR Pre-Incident Information Summary for Latitude: 37° 41' 122.35 Longitude: 122° 2 122.3542

### **South Bay Anchorages: Undesignated Anchorages**

2-E00

Type: Anchorage

County: San Francisco-Alameda

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Nothing significant other than onward movements of cargoes from ships that may be stuck at anchorages.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

	Name / Title	Title Organization		more details
E	City of Alameda, Parks	Alameda, City of, Dept. of Parks and Recreation	(510) 748-4565	
T	Joy Albertson	US Fish & Wildlife Service, SF Bay (NWR)	(510) 792-0222	
E/T	Michael Avalos Park Supervisor	East Bay Regional Park District	(510) 521-7090	
E	Carol Bach	Port of San Francisco	(415) 274-0568	
T	Baylands Nature Pres Office	Baylands Nature Preserve	(650) 329-2506	
T	John Bradley Refuge Manager	SF Bay National Wildlife Refuge Complex	(510) 792-0222	
E/T	DPR Dispatch	US National Park Service, Golden Gate (NRA)	(415) 561-4620	
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833	
E/T	John Krause	CA Dept. of Fish & Game, Region 3	(415) 454-8050	
E	Clif Marccetti Marina Manager	Berkeley, City of, Dept. of Parks	(510) 981-6737	
E	Butch Paredes	Cargill Salt	(510) 790-8165	
O	City of San Francisco	San Francisco, City and County of	(415) 556-8371	
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
O	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644	
O	Operations State Water Project	CA Department of Water Resources	(916) 574-2714	
E/T	Mark Taylor Park Supervisor	East Bay Regional Park District	(510) 783-1066	

### **Characteristics and Tactical Considerations**

Primary Jursidictional Contact: USCG Sector SF Marine Fire Fighting Resources: SF PIER 24: 37-47.42, 122-23.24

Approximate Tug Response Times 2 HOURS

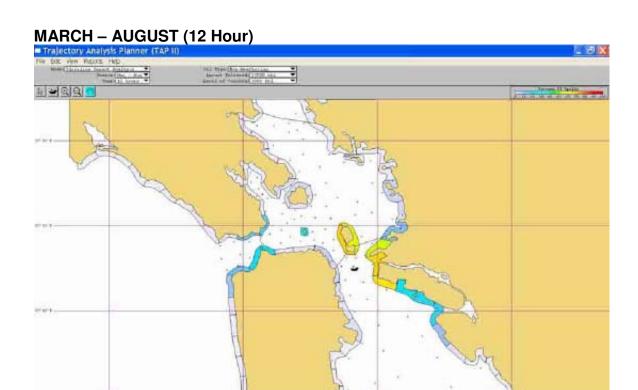
#### 2-E00 PPOR Pre-Incident Information Summary for South Bay Anchorages: Undesignated Anchorages atitude: 37° 41' 122.35 Longitude: 122° 2 122.3542 Type: County: San Francisco-Alameda Anchorage List of Nearby Environmentally Sensitive Sites: SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,353A,354A,3 Is Containment Possible? **Coast Pilot and Navigation Chart Information** Pilot **Prevailing Winds** Tidal Bottom Type: Max Water Min Water Currents Sea Conditions Fog Shelter From Navigational Approach Requirements Range Depth Depths Severe Storms MUD 6 26 SEASONAL YES 0 **~ Specific Site Details** Site Site Name Vessel Capacities Site Capacities and Facilities ID Swing Room Max Max Max Facilities, capabilities, and any other issues or concern ContainmentPossiblities: Size Lgth Draft or Dock Face Deep 1000 25 3038 SWING ROOM OR DOCK FACE: 1/2 NAUTICAL MILE Potential for successful primary containment increases the Undesignated Anchorages further south one goes in the Bay because currents SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN significantly diminish to the south. Anchorage 8 is not likely to AND PHOENIX; OTHER FIREFIGHTING RESOURCES have good primary containment. Potential for secondary COME FROM FOSS/CHEVRON/OAKLAND AND confinement of oil escaping primary containment is minimal because the only opportunity is the openwater which is RICHMOND. problematic due to spreading even if there is no current exceeding 0.7 knt.

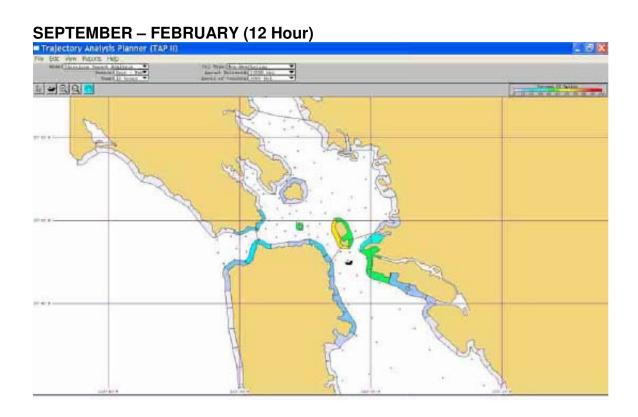
Site Contact/Leasee/Owner:

VTS

### TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-E08 (Anchorage 8)





South Bay Anchorages: Anchorage 8

2-E08 Type:

Latitude: 37° 47.4'

122.36 Longitude:

122° 2

County: San Francisco-Alameda

Anchorage

### **Location Description:**

General Anchorage No. 8 has charted depths to approximately 57 feet (MLLW).

Though winds throughout the bay are geographically variable, Spring and Summer winds in this area are often out of the SW to NW (i.e. towards land). Tidal currents in the area would dominate water flows. Based on previous oil spills in San Francisco, releases from this location may threaten maritime traffic throughout the Central Bay and through the Golden Gate.

The Central Bay includes sites of cultural significance and is the most important migratory corridor between the Pacific Ocean and the estuarine and riverine habitats upstream in California. Many properties within the Central Bay are listed on the National Register of Historic Places and many of the islands support concentrations of seabirds, including the largest western gull and Brandt's Cormorants breeding populations in the region. Marshes in the South Bay support populations of endangered California Clapper Rail and Salt Marsh Harvest mice and threatened Western Snowy Plover. In addition, Chinook Salmon is an Endangered species that may occur in nearby bay waters. Numerous ACP-designated sensitive sites are located throughout the Central Bay and may be threatened by releases from this PPOR site.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

(East Shoreline)

Alameda NAS-(S/F E/E) California least tern, present April-August, nest May-August, restoration area: (S/F E/E) California brown pelican, present May-November.

Alameda Eelgrass Beds-(S/F E/E) California brown pelican, roost/forage in area.

San Leandro Bay/Arrowhead Marsh-(S/F E/E) California clapper rail present year-round and nests March-July, (S-T) black rail nests March-May,(S/F E/E) salt marsh harvest mouse, (S/F T/T) salt marsh wandering shrew present year-round, (SSC) salt marsh common yellowthroat present year-round. Also, (S/F-E/E) California brown pelican, (S/F-E/E) California least tern forage in area.

Bay Farm Island (F/T) Western snowy plover nest present from February-September, rare plant alkali milk-vetch present year-round.

Oyster Bay Marshes-(F/T) Western snowy plover nest present from February-September; (S/F T/T) salt marsh wandering shrew present year-round.

San Lorenzo Creek/Bunker & North marshes - (S/F E/E) California clapper rail present year-round and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. (S/F E/E) California least tern Sector SF

Critical Habitat for TAES:

Arrowhead Marsh supports a number of listed/sensitive species and currently has the highest density of breeding California clapper rails in San Francisco Bay. Emeryville lagoon/mudflat provides pickleweed habitat for listed species. East Bay Regional Park District shoreline salt marshes support number of listed species.

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

Section 8000 - 92 October 1, 2008

**South Bay Anchorages: Anchorage 8** 

2-E08 Type:

Latitude: 37° 47.4'

County: San Francisco-Alameda

122.36 Longitude:

122° 2

Anchorage

forage in area.

Oro Loma, Frank's Dump West & Triangle marshes - (S/F E/E) California clapper rail and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. S/F E/E California least tern and (F/T) western snowy plover forage in area.

Cogswell, Hayward & HARD marshes - (S/F E/E) California clapper rail present year-round, forage and nest; (S/F E/E) salt marsh harvest mouse present year-round; (S/F E/E) California least tern present April-August, nests May-August; (F/T) western snowy plover forage and nest in salt-pond area.

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare plant).

(West Shoreline)

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from May-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Colma Creek area marshes - (S/F E/E) California clapper rail present yearround, nesting March-July.

Airport Mudflat - (S/F E/E) California clapper rail present year-round in marsh in back of cove, nesting March-July

(S/F E/E) California clapper rail present year-round in several of small strip marshes between Colma Creek and the Bair/Greco area, nesting March-July.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,3 53A,354A,361A,400C/X,401B,490A,495A; ESI/SFB-Maps 16,17,18,19,20, 21,22

(East Bay Shoreline) Alameda NAS eelgrass, harbor seal haulout area. Sector SF

Critical Habitat for Non-protected (Non-TAES) Species:

East Bay Regional Park District shoreline salt marshes have extensive cordgrass and mudflats which support listed and non-listed species.

In general, extensive mudflats on both east and west bay shorelines support heavy use by variety of shorebirds (e.g., herons and egrets), wading and Section 8000 - 93 October 1, 2008

**South Bay Anchorages: Anchorage 8** 

2-E08

Type: Anchorage

**Latitude:** 37° 47.4' 122.36 **Longitude:** 122° 2

County: San Francisco-Alameda

Alameda eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area year-round. San Leandro Bay/Arrowhead Marsh supports listed species, rare/sensitive plants, wading birds, shorebirds and waterfowl. Bay Farm Island eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area year-round. Oyster Bay marshes and mudflat support migratory waterfowl and shorebirds. San Lorenzo Creek/Bunker & North marshes and Oro Loma, Frank's Dump West & Triangle marshes and Cogswell, Hayward, HARD marshes support heavy use by migratory waterfowl and variety of shorebirds, wading (e.g., heron, egret nesting), and diving (Caspian terns) birds. The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants.

(West Bay Shoreline) SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation, pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety of water birds, shorebirds and upland songbirds. Airport Mudflat and cove serves as feeding/resting area for waterfowl, wading birds and shorebirds, with highest use in winter. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March.

diving birds, and harbor seals. Open waters support heavy use by migratory waterfowl. Sloughs, mudflats support fish, shellfish, infauna.

Subsistence-use Species:

Essential Fish Habitat:

Bay fish species move in/out of channels and ponds in these areas.

Commercial Fisheries / Species:

Commercial fishing from TI/YBI. Herring spawning in shorelines of Berkeley and Emeryville eelgrass beds.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Cultural/historic resources likely present in/around Arrowhead Marsh and Bay Farm Island. EBRPD shoreline Ohlone cultural sites in area. Hayward Landing is historic site.

Recreational Species and Habitat:

Elsie Roemer Bird Sanctuary located southeast end of Crown Beach.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Sector SF Section 8000 - 94 October 1, 2008

# PPOR Pre-Incident Information Summary for Latitude: 37° 47.4′ 122.36 Longitude: 122° 2 122.355

**South Bay Anchorages: Anchorage 8** 

2-E08

Type: Anchorage

County: San Francisco-Alameda

Human Health and Safety:

Anchorage 8 are near population centers of San Francisco (764,976), Oakland (420,183) and Alameda (72,259)--population are provided in parenthesis.

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Economic Impact on Maritime Commerce and Shipping:

May affect shipping lanes to Alameda Point, Entrance to Oakland Inner Harbor Channel and the Port of Redwood City. Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Nothing significant other than onward movements of cargoes from ships that may be stuck at anchorages.

### Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
	State Water Project	CA Dept. of Water Resources	(916) 574-2714	
E	City of Alameda, Parks	Alameda, City of, Dept. of Parks and Recreation	(510) 748-4565	
T	Joy Albertson	US Fish & Wildlife Service, SF Bay (NWR)	(510) 792-0222	
E/T	Michael Avalos Park Supervisor	East Bay Regional Park District	(510) 521-7090	
E	Carol Bach	Port of San Francisco	(415) 274-0568	
T	Baylands Nature Pres Office	Baylands Nature Preserve	(650) 329-2506	
T	John Bradley Refuge Manager	SF Bay National Wildlife Refuge Complex	(510) 792-0222	
E/T	Communication Center	US National Park Service, Golden Gate (NRA)	(415) 561-5505	
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833	
	Daphne Hatch	GGNRA	(415) 331-0744	
E/T	John Krause	CA Dept. of Fish & Game, Region 3	(415) 454-8050	
E	Clif Marccetti Marina Manager	Berkeley, City of, Dept. of Parks	(510) 981-6737	
	Office of Superintendent	GGNRA	(415) 561-4722	
E	Butch Paredes	Cargill Salt	(510) 790-8165	
О	City of San Francisco	San Francisco, City and County of	(415) 556-8371	
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
О	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644	
	Viktoriya Sirova	GGNRA	(415) 561-4731	
E/T	Mark Taylor Park Supervisor	East Bay Regional Park District	(510) 783-1066	

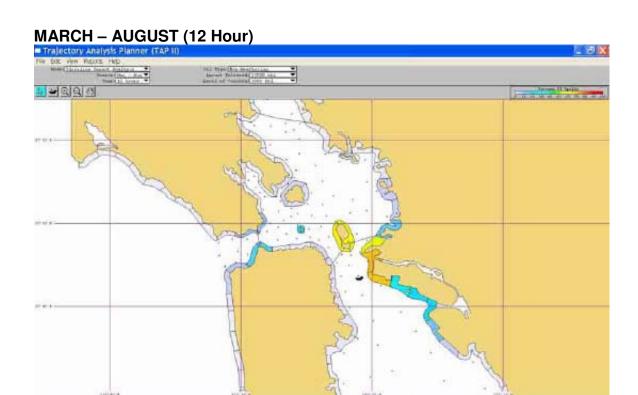
2-E08 PPOR Pre-Incident Information Summary for South Bay Anchorages: Anchorage 8 atitude: 37° 47.4' 122.36 Longitude: 122° 2 122.355 Type: County: San Francisco-Alameda Anchorage **Characteristics and Tactical Considerations Primary Jursidictional Contact:** USCG Sector SF Marine Fire Fighting Resources: SF PIER 24: 37-47.42, 122-23.24 Approximate Tug Response Times 30 MINUTES List of Nearby Environmentally Sensitive Sites: SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,353A,354A,3 Is Containment Possible? **Coast Pilot and Navigation Chart Information** Pilot Prevailing Winds Tidal Bottom Type: Max Water Min Water Currents Sea Conditions Fog Shelter From Navigational Approach Range Depth Depths Severe Storms Requirements W 6 MUD 55 0 SEASONAL YES **~ Specific Site Details** Site Site Name Vessel Capacities Site Capacities and Facilities ID Max Max Swing Room Facilities, capabilities, and any other issues or concern Max ContainmentPossiblities: Lgth Draft or Dock Face Size 1500 Deep 50 3038 SWING ROOM OR DOCK FACE: 1/2 NAUTICAL MILE Anchorage 8 Potential for successful primary containment increases the further south one goes in the Bay because currents SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN significantly diminish to the south. Anchorage 8 is not likely to AND PHOENIX have good primary containment. Potential for secondary confinement of oil escaping primary containment is minimal because the only opportunity is the openwater which is SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX: OTHER FIREFIGHTING RESOURCES problematic due to spreading even if there is no current COME FROM FOSS/CHEVRON/OAKLAND AND exceeding 0.7 knt. RICHMOND.

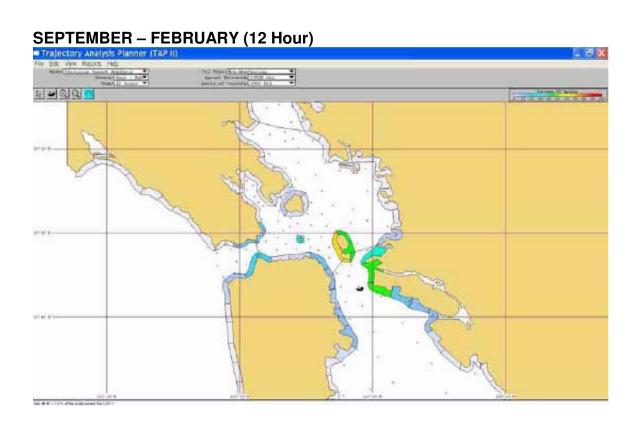
Site Contact/Leasee/Owner:

VTS ON CHANNEL 14

### TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-E09 (Anchorage 9)





South Bay Anchorages: Anchorage 9

**2-E09**Type:

Latitude: 37° 46' 122.35 Longitude:
County: San Francisco-Alameda

Anchorage

### **Location Description:**

General Anchorage No. 9 has charted depths to approximately 60 feet (MLLW).

122° 2

Though winds throughout the bay are geographically variable, Spring and Summer winds in this area are often out of the SW to NW. Tidal currents are typically are generally weaker in broad parts of the Bay.

Marshes in this area support populations of endangered California Clapper Rail and Salt Marsh Harvest mice and threatened Western Snowy Plover. Numerous ACP-designated sensitive sites are located throughout the Central Bay and may be threatened by releases from this PPOR site.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

(East Shoreline)

Alameda NAS-(S/F E/E) California least tern, present April-August, nest May-August, restoration area; (S/F E/E) California brown pelican, present May-November.

Alameda Eelgrass Beds-(S/F E/E) California brown pelican, roost/forage in area.

San Leandro Bay/Arrowhead Marsh-(S/F E/E) California clapper rail present year-round and nests March-July, (S-T) black rail nests March-May,(S/F E/E) salt marsh harvest mouse, (S/F T/T) salt marsh wandering shrew present year-round, (SSC) salt marsh common yellowthroat present year-round. Also, (S/F-E/E) California brown pelican, (S/F-E/E) California least tern forage in area.

Bay Farm Island (F/T) Western snowy plover nest present from February-September, rare plant alkali milk-vetch present year-round.

Oyster Bay Marshes-(F/T) Western snowy plover nest present from February-September; (S/F T/T) salt marsh wandering shrew present year-round.

San Lorenzo Creek/Bunker & North marshes - (S/F E/E) California clapper rail present year-round and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. (S/F E/E) California least tern forage in area.

Oro Loma, Frank's Dump West & Triangle marshes - (S/F E/E) California clapper rail and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. S/F E/E California least tern and (F/T) western

Critical Habitat for TAES:

Arrowhead Marsh supports a number of listed/sensitive species and currently has the highest density of breeding California clapper rails in San Francisco Bay. Emeryville lagoon/mudflat provides pickleweed habitat for listed species. East Bay Regional Park District shoreline salt marshes support number of listed species.

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

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**South Bay Anchorages: Anchorage 9** 

2-E09 Type:

Latitude: 37° 46'

122.35 Longitude:

122° 2

Anchorage

County: San Francisco-Alameda snowy plover forage in area.

Cogswell, Hayward & HARD marshes - (S/F E/E) California clapper rail present year-round, forage and nest; (S/F E/E) salt marsh harvest mouse present year-round; (S/F E/E) California least tern present April-August, nests May-August: (F/T) western snowy ployer forage and nest in salt-pond area.

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare plant).

(West Shoreline)

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from Mav-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Colma Creek area marshes - (S/F E/E) California clapper rail present yearround, nesting March-July,

Airport Mudflat - (S/F E/E) California clapper rail present year-round in marsh in back of cove, nesting March-July

(S/F E/E) California clapper rail present year-round in several of small strip marshes between Colma Creek and the Bair/Greco area, nesting March-July.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,3 53A,354A,361A,400C/X,401B,490A,495A; ESI/SFB-Maps 16,17,18,19,20, 21.22

(East Bay Shoreline) Alameda NAS eelgrass, harbor seal haulout area. Alameda eelgrass beds support herring spawning during winter. seabirds/shorebirds utilize area year-round. San Leandro Bay/Arrowhead Marsh supports listed species, rare/sensitive plants, wading birds, shorebirds and waterfowl. Bay Farm Island eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area year-round. Oyster Bay

Critical Habitat for Non-protected (Non-TAES) Species:

East Bay Regional Park District shoreline salt marshes have extensive cordgrass and mudflats which support listed and non-listed species.

In general, extensive mudflats on both east and west bay shorelines support heavy use by variety of shorebirds (e.g., herons and egrets), wading and diving birds, and harbor seals. Open waters support heavy use by migratory waterfowl. Sloughs, mudflats support fish, shellfish, infauna.

Sector SF Section 8000 - 99 October 1, 2008

South Bay Anchorages: Anchorage 9

2-E09 Type: Anchorage

Latitude: 37° 46'

122.35 **Longitude:** 122° 2

County: San Francisco-Alameda

marshes and mudflat support migratory waterfowl and shorebirds. San Lorenzo Creek/Bunker & North marshes and Oro Loma, Frank's Dump West & Triangle marshes and Cogswell, Hayward, HARD marshes support heavy use by migratory waterfowl and variety of shorebirds, wading (e.g., heron, egret nesting), and diving (Caspian terns) birds. The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants.

(West Bay Shoreline) SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation. pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety of water birds, shorebirds and upland songbirds. Airport Mudflat and cove serves as feeding/resting area for waterfowl, wading birds and shorebirds. with highest use in winter. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March.

Subsistence-use Species:

Essential Fish Habitat:

Bay fish species move in/out of channels and ponds in these areas.

Commercial Fisheries / Species:

Commercial fishing from TI/YBI. Herring spawning in shorelines of Berkeley and Emeryville eelgrass beds.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Cultural/historic resources likely present in/around Arrowhead Marsh and Bay Farm Island. EBRPD shoreline Ohlone cultural sites in area. Hayward Landing is historic site.

Recreational Species and Habitat:

Elsie Roemer Bird Sanctuary located southeast end of Crown Beach.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Anchorage 9 are near population centers of San Francisco (764,976). Oakland (420,183) and Alameda (72,259)--population are provided in parenthesis.

Economic Impact on Maritime Commerce and Shipping:

May affect shipping lanes to Alameda Point, Entrance to Oakland Inner Harbor Channel and the Port of Redwood City. Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of Section 8000 - 100 October 1, 20

Sector SF

#### PPOR Pre-Incident Information Summary for 122.35 Longitude: 122° 2

South Bay Anchorages: Anchorage 9

2-E09

Type: Anchorage

Latitude: 37° 46'

County: San Francisco-Alameda

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commericial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Nothing significant other than onward movements of cargoes from ships that may be stuck at anchorages

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

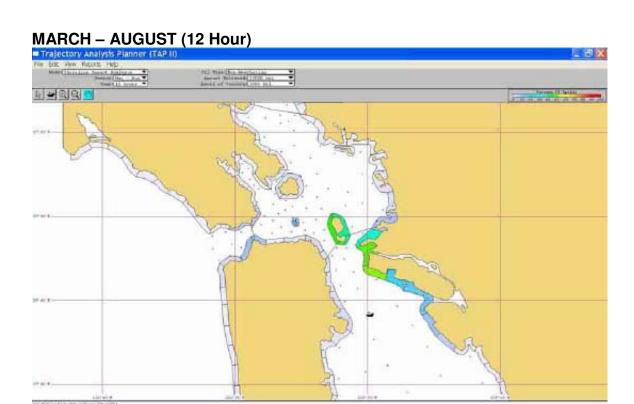
	Name / Title	Title Organization		more details
Е	City of Alameda, Parks	Alameda, City of, Dept. of Parks and Recreation	(510) 748-4565	
T	Joy Albertson	US Fish & Wildlife Service, SF Bay (NWR)	(510) 792-0222	
E/T	Michael Avalos Park Supervisor	East Bay Regional Park District	(510) 521-7090	
Е	Carol Bach	Port of San Francisco	(415) 274-0568	
T	Baylands Nature Pres Office	Baylands Nature Preserve	(650) 329-2506	
T	John Bradley Refuge Manager	SF Bay National Wildlife Refuge Complex	(510) 792-0222	
E/T	Communication Center	US National Park Service, Golden Gate (NRA)	(415) 561-5505	
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833	
E/T	John Krause	CA Dept. of Fish & Game, Region 3	(415) 454-8050	
Е	Clif Marccetti Marina Manager	Berkeley, City of, Dept. of Parks	(510) 981-6737	
Е	Butch Paredes	Cargill Salt	(510) 790-8165	
O	City of San Francisco	San Francisco, City and County of	(415) 556-8371	
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
О	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644	
O	Operations State Water Project	CA Department of Water Resources	(916) 574-2714	
E/T	Mark Taylor Park Supervisor	East Bay Regional Park District	(510) 783-1066	

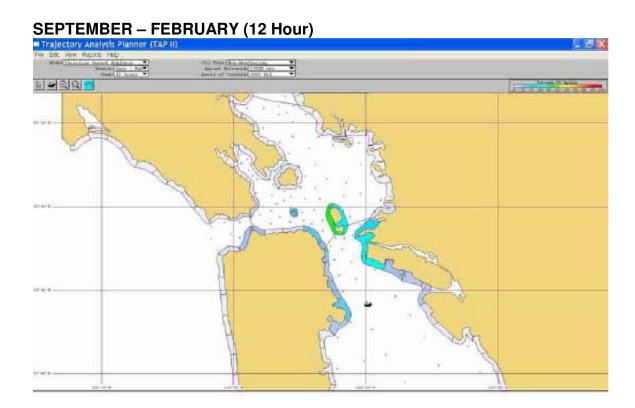
### **Characteristics and Tactical Considerations**

Primary Jursidictional Contact: USCG Sector SF Marine Fire Fighting Resources: SF PIER 24: 37-47.42, 122-23.24 Approximate Tug Response Times 30 MINUTES

### TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-E12 (Anchorage 12)





### PPOR Pre-Incident Information Summary for 122.34 Longitude:

South Bay Anchorages: Anchorage 12

2-E12

Type: Anchorage

County: San Francisco-Alameda

Latitude: 37° 44.5'

### **Location Description:**

Explosive Anchorage No. 12 has charted depths to approximately 54 feet (MLLW) and surrounded by a 667 yard Forbidden Anchorage zone.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW (i.e. away from land) whereas Summer winds are often out of the W and NW. Tidal currents are typically are generally weaker in broad parts of the Bay.

Marshes in this area support populations of endangered California Clapper Rail and Salt Marsh Harvest mice and threatened Western Snowy Plover. Numerous ACP-designated sensitive sites are located throughout the Central Bay and may be threatened by releases from this PPOR site.

### Natural Resource Concerns and Issues for this Place / Site

122° 2

Threatened and Endangered Species (TAES):

(East Shoreline)

Alameda NAS-(S/F E/E) California least tern, present April-August, nest May-August, restoration area; (S/F E/E) California brown pelican, present May-November.

Alameda Eelgrass Beds-(S/F E/E) California brown pelican, roost/forage in area.

San Leandro Bay/Arrowhead Marsh-(S/F E/E) California clapper rail present year-round and nests March-July, (S-T) black rail nests March-May, (S/F E/E) salt marsh harvest mouse, (S/F T/T) salt marsh wandering shrew present year-round, (SSC) salt marsh common yellowthroat present year-round. Also, (S/F-E/E) California brown pelican, (S/F-E/E) California least tern forage in area.

Bay Farm Island (F/T) Western snowy plover nest present from February-September, rare plant alkali milk-vetch present year-round.

Oyster Bay Marshes-(F/T) Western snowy plover nest present from February-September; (S/F T/T) salt marsh wandering shrew present year-round.

San Lorenzo Creek/Bunker & North marshes - (S/F E/E) California clapper rail present year-round and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. (S/F E/E) California least tern forage in area.

Oro Loma, Frank's Dump West & Triangle marshes - (S/F E/E) California clapper rail and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. S/F E/E California least tern and (F/T) western

#### Critical Habitat for TAES:

Arrowhead Marsh supports a number of listed/sensitive species and currently has the highest density of breeding California clapper rails in San Francisco Bay. Emeryville lagoon/mudflat provides pickleweed habitat for listed species. East Bay Regional Park District shoreline salt marshes support number of listed species.

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

Section 8000 - 103 October 1, 2008

**South Bay Anchorages: Anchorage 12** 

**2-E12**Type:

Latitude: 37° 44.5'

122.34 Longitude:

122° 2 122.3

Anchorage

County: San Francisco-Alameda

snowy plover forage in area.

Cogswell, Hayward & HARD marshes - (S/F E/E) California clapper rail present year-round, forage and nest; (S/F E/E) salt marsh harvest mouse present year-round; (S/F E/E) California least tern present April-August, nests May-August; (F/T) western snowy ployer forage and nest in salt-pond area.

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare plant).

(West Shoreline)

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from May-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Colma Creek area marshes - (S/F E/E) California clapper rail present year-round, nesting March-July.

Airport Mudflat - (S/F E/E) California clapper rail present year-round in marsh in back of cove, nesting March-July

(S/F E/E) California clapper rail present year-round in several of small strip marshes between Colma Creek and the Bair/Greco area, nesting March-July.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,3 53A,354A,361A,400C/X,401B,490A,495A; ESI/SFB-Maps 16,17,18,19,20, 21,22

(East Bay Shoreline) Alameda NAS eelgrass, harbor seal haulout area. Alameda eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area year-round. San Leandro Bay/Arrowhead Marsh supports listed species, rare/sensitive plants, wading birds, shorebirds and waterfowl. Bay Farm Island eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area year-round. Oyster Bay

Critical Habitat for Non-protected (Non-TAES) Species:

East Bay Regional Park District shoreline salt marshes have extensive cordgrass and mudflats which support listed and non-listed species.

In general, extensive mudflats on both east and west bay shorelines support heavy use by variety of shorebirds (e.g., herons and egrets), wading and diving birds, and harbor seals. Open waters support heavy use by migratory waterfowl. Sloughs, mudflats support fish, shellfish, infauna.

Sector SF Section 8000 - 104 October 1, 2008

South Bay Anchorages: Anchorage 12

**2-E12**Type:

•

County: San Francisco-Alameda

**Latitude:** 37° 44.5'

Anchorage

marshes and mudflat support migratory waterfowl and shorebirds. San Lorenzo Creek/Bunker & North marshes and Oro Loma, Frank's Dump West & Triangle marshes and Cogswell, Hayward, HARD marshes support heavy use by migratory waterfowl and variety of shorebirds, wading (e.g., heron, egret nesting), and diving (Caspian terns) birds. The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants.

122.34 Longitude: 122° 2 122.3417

(West Bay Shoreline) SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation, pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety of water birds, shorebirds and upland songbirds. Airport Mudflat and cove serves as feeding/resting area for waterfowl, wading birds and shorebirds, with highest use in winter. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March.

Subsistence-use Species:

Essential Fish Habitat:

Bay fish species move in/out of channels and ponds in these areas.

Commercial Fisheries / Species:

Commercial fishing from TI/YBI. Herring spawning in shorelines of Berkeley and Emeryville eelgrass beds.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Cultural/historic resources likely present in/around Arrowhead Marsh and Bay Farm Island. EBRPD shoreline Ohlone cultural sites in area. Hayward Landing is historic site.

Recreational Species and Habitat:

Elsie Roemer Bird Sanctuary located southeast end of Crown Beach.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Anchorage 12 is near the east shore of Sausalito in Marin County with a population OF 764,976.

Economic Impact on Maritime Commerce and Shipping:

Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

**South Bay Anchorages: Anchorage 12** 

2-E12

Type: Anchorage

Latitude: 37° 44.5' 122.34 Longitude:

County: San Francisco-Alameda

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing.

122° 2 122.3417

Economic Impact on Recreational Fishing and Marine Tourism:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Economic Impact on Non-maritime Commerce:

Nothing significant other than onward movements of cargoes from ships that may be stuck at anchorages

### Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details	
Е	City of Alameda, Parks	Alameda, City of, Dept. of Parks and Recreation	(510) 748-4565		
T	Joy Albertson	US Fish & Wildlife Service, SF Bay (NWR)	(510) 792-0222		
E/T	Michael Avalos Park Supervisor	East Bay Regional Park District	(510) 521-7090		
E	Carol Bach	Port of San Francisco	(415) 274-0568		
T	Baylands Nature Pres Office	Baylands Nature Preserve	(650) 329-2506		
T	John Bradley Refuge Manager	SF Bay National Wildlife Refuge Complex	(510) 792-0222		
E/T	Communication Center	US National Park Service, Golden Gate (NRA)	(415) 561-5505		
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833		
E/T	John Krause	CA Dept. of Fish & Game, Region 3	(415) 454-8050		
E	Clif Marccetti Marina Manager	Berkeley, City of, Dept. of Parks	(510) 981-6737		
E	Butch Paredes	Cargill Salt	(510) 790-8165		
О	City of San Francisco	San Francisco, City and County of	(415) 556-8371		
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369		
О	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644		
О	Operations State Water Project	CA Department of Water Resources	(916) 574-2714		
E/T	Mark Taylor Park Supervisor	East Bay Regional Park District	(510) 783-1066		

### **Characteristics and Tactical Considerations**

Primary Jursidictional Contact: USCG Sector SF Marine Fire Fighting Resources: SF PIER 24: 37-47.42, 122-23.24

Approximate Tug Response Times 1 HOUR

List of Nearby Environmentally Sensitive Sites: SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,353A,354A,3 Is Containment Possible?

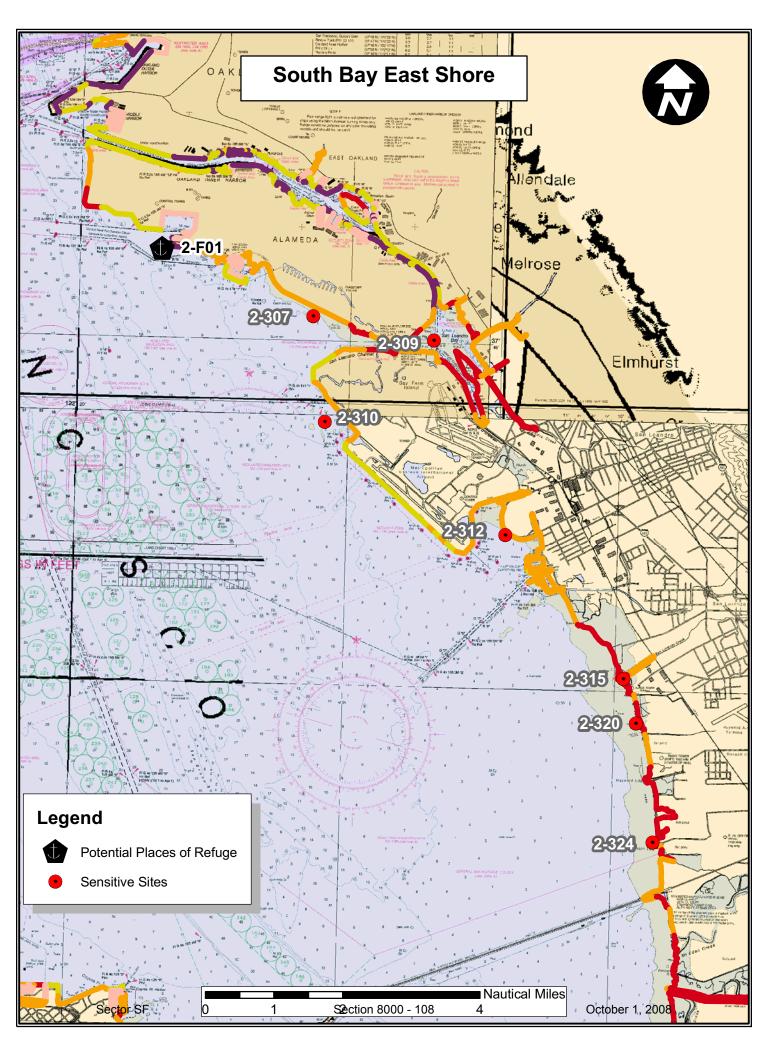
### **Coast Pilot and Navigation Chart Information**

Prevailing Wind	Tidal Range	Bottom Type:	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
W	6	MUD	60	0			SEASONAL			

## PPOR Pre-Incident Information Summary for Latitude: 37° 44.5′ 122.34 Longitude: 122° 2 122.3417 County: San Francisco-Alameda South Bay Anchorages: Anchorage 12 Type: Anchorage

#### **Specific Site Details**

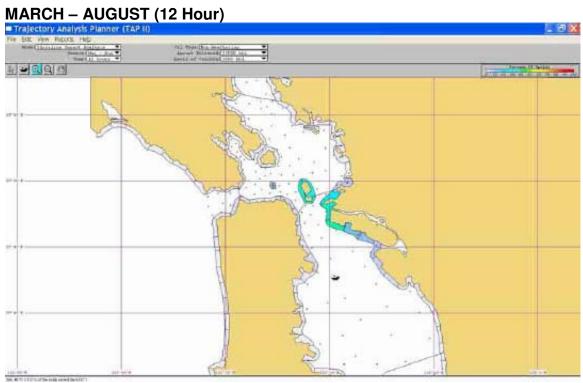
Site	Site Name	Vessel Capacities				Site Capacities and Facilities		
ID		Max Size	Max Lgth		Swing Room or Dock Face	Facilities, capabilities, and any other issues or concern	ContainmentPossiblities:	
12	Anchorage 12	Deep	1500	50	3038		Potential for successful primary containment increases the further south one goes in the Bay because currents	
						SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX	significantly diminish to the south. Anchorage 8 is not likely to have good primary containment. Potential for secondary confinement of oil escaping primary containment is minimal	
						AND PHOENIX; OTHER FIREFIGHTING RESOURCES COME FROM FOSS/CHEVRON/OAKLAND AND	because the only opportunity is the openwater which is problematic due to spreading even if there is no current exceeding 0.7 knt.	
Site C	ontact/Leasee/Owner:					RICHMOND.		

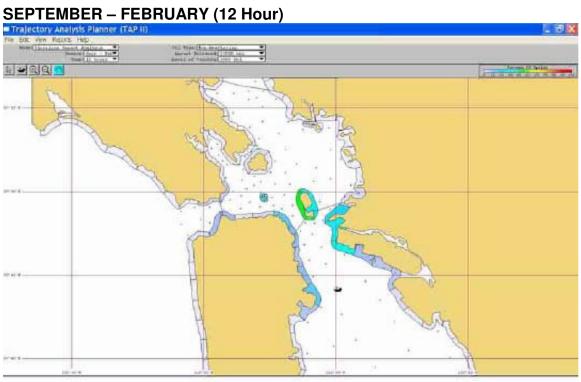


## TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-E14 (Anchorage 14)







#### PPOR Pre-Incident Information Summary for 122.33 Longitude:

South Bay Anchorages: Anchorage 14

2-E14

Type: Anchorage

County: San Francisco-Alameda

Latitude: 37° 43.1'

#### **Location Description:**

Explosive Anchorage No. 14 has charted depths to approximately 44 feet (MLLW) and surrounded by a 667 yard Forbidden Anchorage zone.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW (i.e. away from land) whereas Summer winds are often out of the W and NW. Tidal currents are typically are generally weaker in broad parts of the Bay.

Marshes in this area support populations of endangered California Clapper Rail and Salt Marsh Harvest mice and threatened Western Snowy Plover. Numerous ACP-designated sensitive sites are located throughout the Central Bay and may be threatened by releases from this PPOR site.

#### Natural Resource Concerns and Issues for this Place / Site

122° 1

Threatened and Endangered Species (TAES):

(East Shoreline)

Alameda NAS-(S/F E/E) California least tern, present April-August, nest May-August, restoration area; (S/F E/E) California brown pelican, present May-November.

Alameda Eelgrass Beds-(S/F E/E) California brown pelican, roost/forage in area.

San Leandro Bay/Arrowhead Marsh-(S/F E/E) California clapper rail present year-round and nests March-July, (S-T) black rail nests March-May, (S/F E/E) salt marsh harvest mouse, (S/F T/T) salt marsh wandering shrew present year-round, (SSC) salt marsh common yellowthroat present year-round. Also, (S/F-E/E) California brown pelican, (S/F-E/E) California least tern forage in area.

Bay Farm Island (F/T) Western snowy plover nest present from February-September, rare plant alkali milk-vetch present year-round.

Oyster Bay Marshes-(F/T) Western snowy plover nest present from February-September; (S/F T/T) salt marsh wandering shrew present year-round.

San Lorenzo Creek/Bunker & North marshes - (S/F E/E) California clapper rail present year-round and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. (S/F E/E) California least tern forage in area.

Oro Loma, Frank's Dump West & Triangle marshes - (S/F E/E) California clapper rail and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. S/F E/E California least tern and (F/T) western

Critical Habitat for TAES:

Arrowhead Marsh supports a number of listed/sensitive species and currently has the highest density of breeding California clapper rails in San Francisco Bay. Emeryville lagoon/mudflat provides pickleweed habitat for listed species. East Bay Regional Park District shoreline salt marshes support number of listed species.

Heron's Head Park/India Basin and Islais Creek/Pier 94 have high value as salt marsh habitat on industrialized SF Peninsula. Also suitable habitat for presence of (S/F-E/E) salt marsh harvest mouse.

Section 8000 - 110 October 1, 2008

South Bay Anchorages: Anchorage 14

**2-E14** Type:

**Latitude:** 37° 43.1'

122.33 Longitude:

ıde: 122° 1

1 12

122.33

Anchorage

County: San Francisco-Alameda snowy plover forage in area.

Cogswell, Hayward & HARD marshes - (S/F E/E) California clapper rail present year-round, forage and nest; (S/F E/E) salt marsh harvest mouse present year-round; (S/F E/E) California least tern present April-August, nests May-August; (F/T) western snowy plover forage and nest in salt-pond area.

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare plant).

(West Shoreline)

YBI-(S/F E/E) peregrine falcon present year-round, nest March-August.

South Basin/Hunters Point (S/F-E/E) California brown pelican present near site from May-November.

Heron's Head Park/India Basin and Islais Creek/Pier 94: (F/E) California seablite plant present year round at HHP. Both potential suitable habitat for (S/F-E/E) salt marsh harvest mouse.

Colma Creek area marshes - (S/F E/E) California clapper rail present year-round, nesting March-July.

Airport Mudflat - (S/F E/E) California clapper rail present year-round in marsh in back of cove, nesting March-July

(S/F E/E) California clapper rail present year-round in several of small strip marshes between Colma Creek and the Bair/Greco area, nesting March-July.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,3 53A,354A,361A,400C/X,401B,490A,495A; ESI/SFB-Maps 16,17,18,19,20, 21,22

(East Bay Shoreline) Alameda NAS eelgrass, harbor seal haulout area. Alameda eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area year-round. San Leandro Bay/Arrowhead Marsh supports listed species, rare/sensitive plants, wading birds, shorebirds and waterfowl. Bay Farm Island eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area year-round. Oyster Bay

Critical Habitat for Non-protected (Non-TAES) Species:

East Bay Regional Park District shoreline salt marshes have extensive cordgrass and mudflats which support listed and non-listed species.

In general, extensive mudflats on both east and west bay shorelines support heavy use by variety of shorebirds (e.g., herons and egrets), wading and diving birds, and harbor seals. Open waters support heavy use by migratory waterfowl. Sloughs, mudflats support fish, shellfish, infauna.

South Bay Anchorages: Anchorage 14

2-E14

Type: Anchorage

**Latitude:** 37° 43.1' 122.33 **Longitude:** 122° 1

County: San Francisco-Alameda

marshes and mudflat support migratory waterfowl and shorebirds. San Lorenzo Creek/Bunker & North marshes and Oro Loma, Frank's Dump West & Triangle marshes and Cogswell, Hayward, HARD marshes support heavy use by migratory waterfowl and variety of shorebirds, wading (e.g., heron, egret nesting), and diving (Caspian terns) birds. The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants.

(West Bay Shoreline) SF South Collection-herring spawn during winter, seabirds and fish present year-round. YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. South Basin/Hunters Point important fringe marshes, tidal mudflats, eelgrass, with concentrations of waterfowl and shorebirds present year round and in higher numbers (1000s) during winter. Heron's Head Park/India Basin and Islais Creek/Pier 94 are wetland restoration sites with high ground vegetation, pickleweed marsh, saltmarsh ponds/lagoons, mudflats supporting variety of water birds, shorebirds and upland songbirds. Airport Mudflat and cove serves as feeding/resting area for waterfowl, wading birds and shorebirds, with highest use in winter. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March.

Subsistence-use Species:

Essential Fish Habitat:

Bay fish species move in/out of channels and ponds in these areas.

Commercial Fisheries / Species:

Commercial fishing from TI/YBI. Herring spawning in shorelines of Berkeley and Emeryville eelgrass beds.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Cultural/historic resources likely present in/around Arrowhead Marsh and Bay Farm Island. EBRPD shoreline Ohlone cultural sites in area. Hayward Landing is historic site.

Recreational Species and Habitat:

Elsie Roemer Bird Sanctuary located southeast end of Crown Beach.

#### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Anchorage 14 are near population centers of San Francisco (764,976), Oakland (420,183) and Alameda (72,259)--population are provided in parenthesis.

Economic Impact on Maritime Commerce and Shipping:

May affect shipping lanes to Alameda Point, Entrance to Oakland Inner Harbor Channel and the Port of Redwood City. Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of October 1, 2008

Sector SF

South Bay Anchorages: Anchorage 14

2-E14

Type: Anchorage

**Latitude:** 37° 43.1' 122.33 **Longitude:** 122° 1 122.33

County: San Francisco-Alameda

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Nothing significant other than onward movements of cargoes from ships that may be stuck at anchorages.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

#### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
Е	City of Alameda, Parks	Alameda, City of, Dept. of Parks and Recreation	(510) 748-4565	
T	Joy Albertson	US Fish & Wildlife Service, SF Bay (NWR)	(510) 792-0222	
E/T	Michael Avalos Park Supervisor	East Bay Regional Park District	(510) 521-7090	
Е	Carol Bach	Port of San Francisco	(415) 274-0568	
О	Baylands Nature Pres Office	Baylands Nature Preserve	(650) 329-2506	
T	John Bradley Refuge Manager	SF Bay National Wildlife Refuge Complex	(510) 792-0222	
E/T	Communication Center	US National Park Service, Golden Gate (NRA)	(415) 561-5505	
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833	
E/T	John Krause	CA Dept. of Fish & Game, Region 3	(415) 454-8050	
Е	Clif Marccetti Marina Manager	Berkeley, City of, Dept. of Parks	(510) 981-6737	
Е	Butch Paredes	Cargill Salt	(510) 790-8165	
О	City of San Francisco	San Francisco, City and County of	(415) 556-8371	
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
О	Linda Scourtis	SF Bay Conservation and Development Commissio	(415) 352-3644	
О	Operations State Water Project	CA Department of Water Resources	(916) 574-2714	
Т	Mark Taylor Park Supervisor	East Bay Regional Park District	(510) 783-1066	

#### **Characteristics and Tactical Considerations**

Primary Jursidictional Contact: USCG Sector SF Marine Fire Fighting Resources: SF PIER 24: 37-42.42, 122-23.24

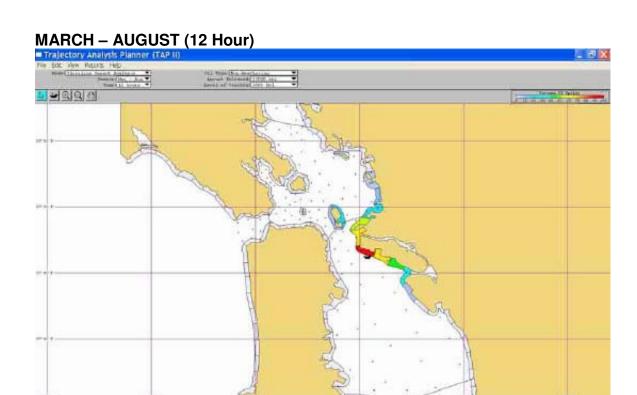
Approximate Tug Response Times 1 HOUR

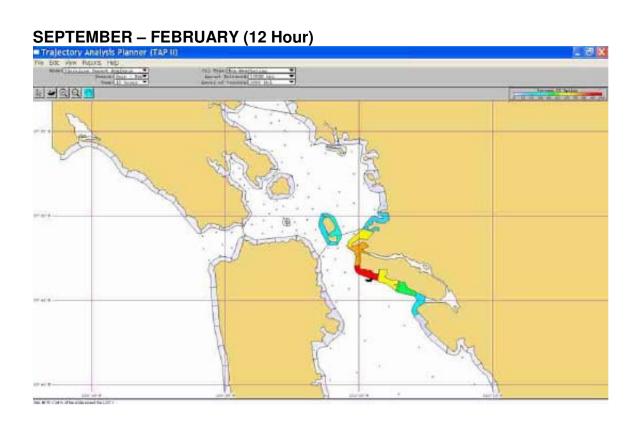
2-E14 PPOR Pre-Incident Information Summary for South Bay Anchorages: Anchorage 14 atitude: 37° 43.1' 122.33 Longitude: 122° 1 Type: County: San Francisco-Alameda Anchorage List of Nearby Environmentally Sensitive Sites: SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A,350E/X,351A/B,352B,353A,354A,3 Is Containment Possible? **Coast Pilot and Navigation Chart Information** Pilot **Prevailing Winds** Tidal Bottom Type: Max Water Min Water Currents Sea Conditions Fog Shelter From Navigational Approach Range Depth Depths Severe Storms Requirements MUD 6 45 0 SEASONAL NO **~ Specific Site Details** Site Site Name Vessel Capacities Site Capacities and Facilities ID Swing Room Max Max Max Facilities, capabilities, and any other issues or concern ContainmentPossiblities: Size Lgth Draft or Dock Face Deep 1500 40 3038 SWING ROOM OR DOCK FACE: 1/2 NAUTICAL MILE Potential for successful primary containment increases the Anchorage 14 further south one goes in the Bay because currents SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN significantly diminish to the south. Anchorage 8 is not likely to AND PHOENIX have good primary containment. Potential for secondary SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN confinement of oil escaping primary containment is minimal because the only opportunity is the openwater which is AND PHOENIX: OTHER FIREFIGHTING RESOURCES COME FROM FOSS/CHEVRON/OAKLAND AND problematic due to spreading even if there is no current RICHMOND. exceeding 0.7 knt.

Site Contact/Leasee/Owner:

VTS ON CHANNEL 14

## TRAJECTORY ANALYSIS PLANNER (TAP Model) Location: 2-F01 (Alameda Point/Naval Station)





#### PPOR Pre-Incident Information Summary for 122.31 Longitude:

**South Bay East Shore: Alameda Point** 

2-F01

Latitude: 37° 46.3' County: Alameda

#### **Location Description:**

Alameda Point is part of a former Naval Air Station (NAS), some of which is listed on the National Priorities (Superfund) List. The site provides numerous piers that may be available possibly for lay berth (long-term dockage). The site is directly accessible from the open bay and has nearby access to Interstate 880.

Though winds throughout the bay are geographically variable, Spring and Summer winds in this area are often out of the SW to NW (i.e. towards land). Tidal currents may be as high as 1.0knot floods (to the southeast) and near 1.5knot ebbs (to the northwest).

Concrete bulkhead and riprap shorelines dominate the area with little/no sensitive shoreline habitat or shallow water habitats known nearby. In addition, the California Least Tern, California Brown Pelican and Chinook Salmon are all Endangered species that may occur in nearby bay waters.

#### Natural Resource Concerns and Issues for this Place / Site

122° 1

122.3083

Threatened and Endangered Species (TAES):

Alameda NAS-(S/F E/E) California least tern, present April-August, nest May-August, restoration area; (S/F E/E) California brown pelican, present May-November.

Alameda Eelgrass Bed-(S/F E/E) California brown pelican, roost/forage in area.

San Leandro Bay/Arrowhead Marsh-(S/F E/E) California clapper rail present year-round and nests March-July, (S-T) black rail nests March-May, (S/F E/E) salt marsh harvest mouse, (S/F T/T) salt marsh wandering shrew present year-round, (SSC) salt marsh common yellowthroat present year-round. Also, (S/F-E/E) California brown pelican, (S/F-E/E) California least tern forage in area.

Bay Farm Island (F/T) Western snowy plover nest present from February-September, rare plant alkali milk-vetch present year-round.

Oyster Bay Marshes-(F/T) Western snowy plover nest present from February-September; (S/F T/T) salt marsh wandering shrew present year-round.

San Lorenzo Creek/Bunker & North marshes - (S/F E/E) California clapper rail present year-round and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. (S/F E/E) California least tern forage in area.

Oro Loma, Frank's Dump West & Triangle marshes - (S/F E/E) California clapper rail and (S-T) black rail forage and nest, (S/F E/E) salt marsh harvest mouse present year-round. S/F E/E California least tern and (F/T) western

Critical Habitat for TAES:

Arrowhead Marsh supports a number of listed/sensitive species and currently has the highest density of breeding California clapper rails in San Francisco Bay. East Bay Regional Park District shoreline salt marshes support number of listed species.

Section 8000 - 116 October 1, 2008

PPOR Pre-Incident Information Summary for South Bay Eas	t Shore: Alameda Point  2-F01  Type:
County: Alameda	
snowy plover forage in area.	
Cogswell, Hayward & HARD marshes - (S/F E/E) California clapper rail present year-round, forage and nest; (S/F E/E) salt marsh harvest mouse present year-round; (S/F E/E) California least tern present April-August, nests May-August; (F/T) western snowy plover forage and nest in salt-pond area.	
Sensitive Non-protected (Non-TAES) Species:	Critical Habitat for Non-protected (Non-TAES) Species:
SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A; ESI/SFB-Maps 17,18,21,23 Alameda NAS eelgrass, harbor seal haulout area. Alameda eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area yearround. San Leandro Bay/Arrowhead Marsh supports listed species, rare/sensitive plants, wading birds, shorebirds and waterfowl. Bay Farm Island eelgrass beds support herring spawning during winter, seabirds/shorebirds utilize area year-round. Oyster Bay marshes and mudflat support migratory waterfowl and shorebirds. San Lorenzo Creek/Bunker & North marshes and Oro Loma, Frank's Dump West & Triangle marshes and Cogswell, Hayward, HARD marshes support heavy use by migratory waterfowl and variety of shorebirds, wading (e.g., heron, egret nesting), and diving (Caspian terns) birds.	East Bay Regional Park District shoreline salt marshes have extensive cordgrass and mudflats which support listed and non-listed species.
Subsistence-use Species:	Critical Habitat for Subsistence Species:
Essential Fish Habitat:	Historic and Cultural Resources:
	Cultural/historic resources likely present in/around Arrowhead Marsh and Bay

Commercial Fisheries / Species:

Cultural/historic resources likely present in/around Arrowhead Marsh and Bay Farm Island. EBRPD shoreline Ohlone cultural sites in area. Hayward Landing is historic site.

Recreational Species and Habitat:

Elsie Roemer Bird Sanctuary located southeast end of Crown Beach.

#### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Population for Oakland (420,183) and for Alameda (72,259)--population are provided in parenthesis.

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil Economic Impact on Maritime Commerce and Shipping:

Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

Sector SF Section 8000 - 117 October 1, 2008

#### PPOR Pre-Incident Information Summary for South Bay East Shore: Alameda Point 122.31 Longitude: 122° 1 122.3083

2-F01

Latitude: 37° 46.3' County: Alameda

can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Economic Impact on Recreational Fishing and Marine Tourism:

City of Alameda is currently redeveloping the Old Naval Air Station into a civilian community (some of the land will become a National Wildlife Refuge and a golf course). Places of Refuge incident may slow this development down. Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commericial fishing. Marine Tourism might be affected.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

#### Stakeholder List for this Place / Site

1	Name / Title	Organization	Phone	more details	
E	City of Alameda, Parks	Alameda, City of, Dept. of Parks and Recreation	(510) 748-4565		
E/T	Michael Avalos Park Supervisor	East Bay Regional Park District	(510) 521-7090		
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833		
E/T	Nigel Harold Park Supervisor	East Bay Regional Park district	(510) 272-4810		
T	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595		
T	Damian Higgins	U.S. Fish & Wildlife Service	(916) 414-6548		
E/T	John Krause	CA Dept. of Fish & Game, Region 3	(415) 454-8050		
E	Butch Paredes	Cargill Salt	(510) 790-8165		
T	Viktoriya Sirova EnvProtectSpecialist	US National Park Service, Golden Gate (NRA)	(415) 561-4731		
E/T	Mark Taylor Park Supervisor	East Bay Regional Park District	(510) 783-1066		
T	Brian Ullensvang Env. Programs Chief	Golden Gate National Recreation Area - NPS	(415) 561-4439		
Е	Jody Zaitlin Environmental Office	Port of Oakland	(510) 627-1179		

#### **Characteristics and Tactical Considerations**

City of Alameda Primary Jursidictional Contact: Marine Fire Fighting Resources: SF PIER 24: 37-42.42. 122-23.24 Approximate Tug Response Times 1.5 HOURS

List of Nearby Environmentally Sensitive Sites: SFACP2:307C/A,309A,310C/A,312A,315A,320A,324A; ESI/SFB-Maps 17,18,21,23

Is Containment Possible?

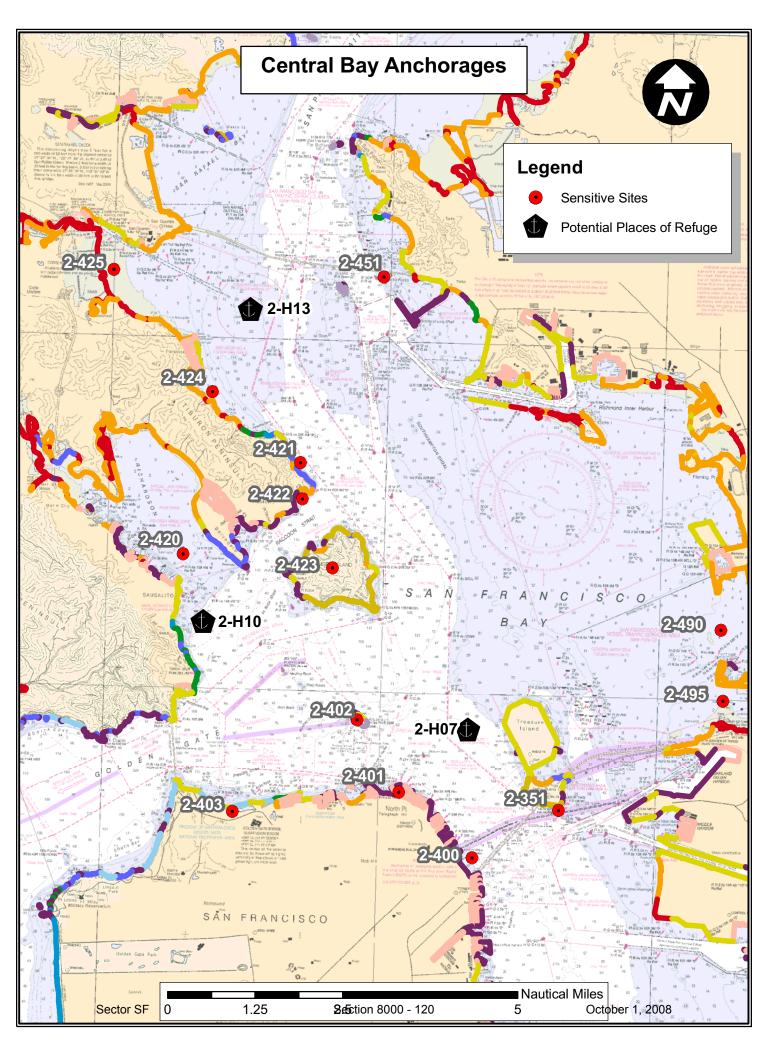
#### **Coast Pilot and Navigation Chart Information**

	U									
Prevailing Winds	Tidal	Bottom Type:	Max Water	Min Water	Currents	Sea Conditions	Fog	Shelter From	Navigational Approach	Pilot
	Range		Depth	Depths				Severe Storms		Requirements
W	6	MUD	30				SEASONAL	YES		<b>✓</b>

# PPOR Pre-Incident Information Summary for Latitude: 37° 46.3' 122.31 Longitude: 122° 1 122.3083 South Bay East Shore: Alameda Point Type:

#### **Specific Site Details**

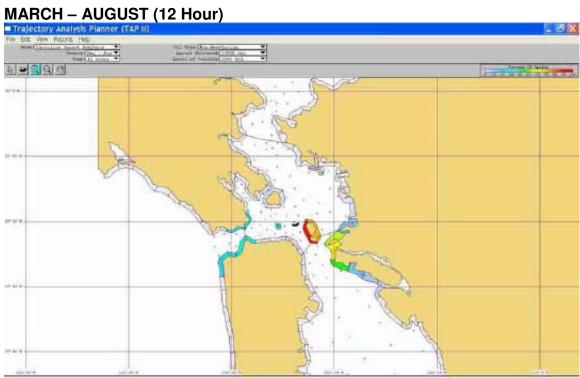
ID.	Site Name	Vessel Capacities			Site Capacities and Facilities		
טו		Max Size	Max   Lgth	Max Swing Room Draft or Dock Face	Facilities, capabilities, and any other issues or concern	ContainmentPossiblities:	
01	Alameda Point	Deep	800	30 80	Must work with City of Alameda.  The MARAD Ready Reserve Fleet is also stationed at Alameda Point (POC: "Tom Schneider Alameda Office 510-749-0903 O-510-786-7323 C-510-749-8351)  SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX; OTHER FIREFIGHTING RESOURCES	There is very good potential for primary containment within this basin due the the low currents and protectedness of the site. There is also good potential for secondary confinement by deflecting oil to the northside of the basin on the ebb tide.	
Cito C	Contact/Leasee/Owner:	II O Maritira	- A .l	ninistration (MAF	COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND.		

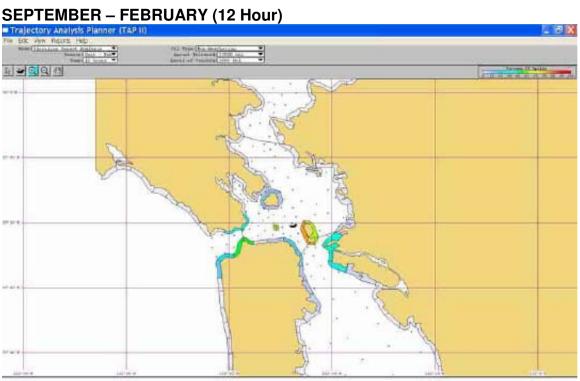


## TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-H07 (Anchorage 7)







Central Bay Anchorages: Anchorage 7

2-H07

Type: Anchorage

Latitude: 37° 49.5' 122.39 Longitude: 122° 2

County: San Francisco, Marin, Alameda, Contra Costa

#### **Location Description:**

Temporary Anchorage No. 7 is has charted depths to approximately 81 feet (MLLW) and is adjacent to maritime traffic transiting under the Oakland Bay Bridge.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW whereas Summer winds are often out of the S and W. Tidal currents in the area would dominate water flows. Based on previous oil spills in San Francisco, releases from this location may threaten maritime traffic throughout the Central Bay and through the Golden Gate.

The Central Bay includes sites of cultural significance and is the most important migratory corridor between the Pacific Ocean and the estuarine and riverine habitats upstream in California. Many properties within the Central Bay are listed on the National Register of Historic Places and many of the islands support concentrations of seabirds, including the largest western gull and Brandt's Cormorants breeding populations in the region. In addition, Chinook Salmon is an Endangered species that may occur in nearby bay waters. Numerous ACP-designated sensitive sites are located throughout the Central Bay and may be threatened by releases from this PPOR site.

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

YBI-(S/F-E/E) peregrine falcon present year-round, nest March-August.

Alcatraz (S/F-E) California brown pelican present mainly March and December.

Crissy Field-(F-E) California seablite plant present year round. (Rare) Point Reyes bird's-beak plant present year round.

Paradise Cove/Tiburon Peninsula - (S/F-E) California brown pelican present .

Keil Cove - (S/F-E) California brown pelican present and (F-T) California redlegged frog present year-round in lagoon.

Angel Island (S/F-E) California brown pelican present.

Paradise Cay Eelgrass & Marina - (S/F-E) California brown pelican present.

Corte Madera Marshes - (S/F-E) California clapper rail, (S-T) black rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak and Marin knotweed (rare plants).

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare plant).

Critical Habitat for TAES:

Rare native plants in Crissy Field restoration area. Habitat for California brown pelican at Angel Island. Alcatraz Island is also "critical habitat" for California brown pelican. Baylands Nature Preserve in Richardson Bay and Corte Madera Marsh State Ecological Reserve (CDFG). Emeryville lagoon/mudflat provides pickleweed habitat for listed species.

Central Bay Anchorages: Anchorage 7

2-F	107
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Type: Anchorage

Latitude: 37° 49.5' 122.39 Longitude: 122° 2

County: San Francisco, Marin, Alameda, Contra Costa

Sensitive Non-protected (Non-TAES) Species:

SFACP2:351A/B,400C/X,401B,402B,403A,420A,421X/B,422A/C,423X/C,424 A/EX,425A,451A,490A,495A; ESI/SFB-Maps 14,16,17

YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March. Alcatraz bird colony rookery and roosting year-round (Western gulls, Brandt's and pelagic cormorants, snowy egrets, black-crowned night herons, pigeon guillemots), herring spawning during winter months, harbor seal and California seal lion haul out at small intertidal rocks NW of the island. Crissy Field (within Golden Gate National Park) is high profile restored native tidal marsh, important resting/foraging habitat for waterbirds/shorebirds/seabirds in urban setting. Richardson Bay marshes support extensive pickleweed and eelgrass beds with herring spawning within bay, extensive mudflats provide foraging for birds and fish, rocky shorelines provide roosting/haul out for birds and harbor seals. Paradise Cove/Tiburon Peninsula supports seabirds including cormorants, harbor seal and sea lion foraging, herring spawning in winter. Keil Cove supports eelgrass beds and herring spawning during winter, Angel Island State Park provides harbor seal/sea lion haulout, seabird (brown pelican, cormorant, gulls) nesting/foraging, herring spawning on eelgrass during winter. Paradise Cay Eelgrass and Marina supports many fish species including herring and shorebirds like western gulls, wading birds, diving birds. Corte Madera Marshes marsh and mudflats heavily used for foraging by migratory shorebirds and waterfowl fall and winter, and year-round by marsh birds, harbor seals haulout and pup in spring. The east section of the Richmond-San Rafael Bridge supports a large double-crested cormorant colony. Castro Rocks used as harbor seal rookery in spring (15 March-10 June), haulout in winter, heavy bird use area (e.g.,cormorants, pelicans). The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants.

	7 11101101age
Critical Habitat for Non-protected (Non-TAES) Species:	
Critical Habitat for Subsistence Species:	

Subsistence-use Species:	Critical Habitat for Subsistence Species:	
Essential Fish Habitat:	Historic and Cultural Resources:	
Commercial Fisheries / Species:	Recreational Species and Habitat	

Halibut spawning along eastern shores of Angel Island. Herring spawning in

Alcatraz-National historic prison site (NPS) with buildings. Crissy Field several areas including shorelines of Richardson Bay, Tiburon Peninsula. | cultural/historic site within Golden Gate National Park. Angel Island Section SF

PPOR Pre-Incident Information Summary for Latitude: 37° 49.5′ 122.39 Longitude: 122° 2 122.39  County: San Francisco, Marin, Alameda, Contra Costa	Bay Anchorages: Anchorage 7  Type: Anchorage
Angel Island, Alcatraz, and Berkeley and Emeryville eelgrass beds.  Commercial fishing from TI/YBI.	cultural/historic site within State Park.
Human Health / Safety Concerns and Economic Issues	
Human Health and Safety:	Economic Impact on Maritime Commerce and Shipping:
Economic Impact on Commercial Fishing and Aquaculture:	Economic Impact on Non-maritime Commerce:
Economic Impact on Recreational Fishing and Marine Tourism:	Other Economic Impacts:
Stakeholder List for this Place / Site	
Name / Title Organization	Phone more details

	Name / Title	Organization	Phone	more details
	Communication Center	GGNRA	(415) 561-5505	
T	Sarah Allen	US National Park Service, Pt. Reyes (NS)	(415) 464-5187	
T	John Bradley Refuge Manager	SF Bay National Wildlife Refuge Complex	(510) 792-0222	
E/O	Chevron Long Wharf	Chevron Corp., Operations Control Room (24hrs.)	(510) 242-4494	
E/T	DPR Dispatch	US National Park Service, Golden Gate (NRA)	(415) 561-4620	
E/T	CenCom DPR DISPATCH	CA Dept. of Parks & Recreation	(831) 649-2817	
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833	
	Daphne Hatch	GGNRA	(415) 331-0744	
T	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595	
T	Damian Higgins	U.S. Fish & Wildlife Service	(916) 414-6548	
E/T	John Hitchen Park Supervisor	East Bay Regional Park District	(510) 237-6896	
E/T	Marin Co Parks Dispatch	Marin, County of, Open Space District	(415) 499-6387	
E/O	Marin County OES (Of	Marin, County of, Sheriff/Office of Emergency Serv	(415) 499-6584	
E/T	Dave Matthews Park Superintendent	CA Department of Parks and Recreation	(415) 435-8339	
	Office of Superintendent	GGNRA	(415) 561-4722	
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369	
E/O	Brian J. Sanford	Marin, County of, Parks & Open Space	(415) 499-6405	
T	Viktoriya Sirova EnvProtectSpecialist	US National Park Service, Golden Gate (NRA)	(415) 561-4731	
О	Operations State Water Project	CA Department of Water Resources	(916) 574-2714	
T	Brian Ullensvang Env. Programs Chief	Golden Gate National Recreation Area - NPS	(415) 561-4439	

#### **Characteristics and Tactical Considerations**

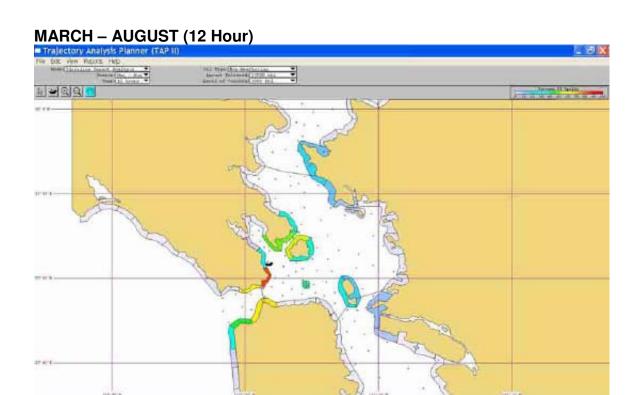
Primary Jursidictional Contact:	USCG SECTOR SF	Marine Fire Fighting Resources:	SF PIER 24: 37-47.42, 122-23.24	
Approximate Tug Response Times	1 HOUR			

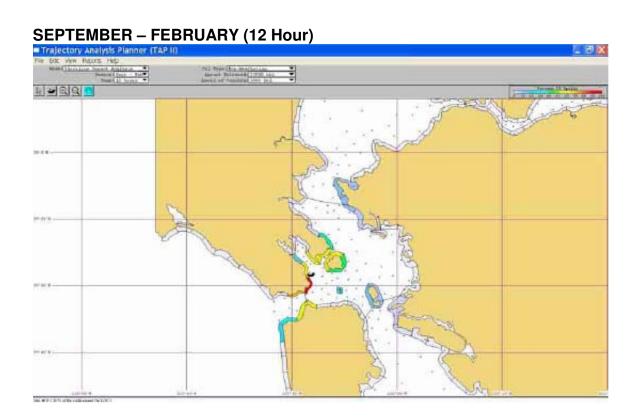
Latitu	R Pre-Inde: 37° 49.5 /: San Franci	5' 122.3	9 Longitue	de:	122° 2		for (	Central	Bay Ancho	rages: An	chorage 7	,	<b>2-H07</b> Type: Anchorage
List of	Nearby Enviro	onmentally S	ensitive Site	es: S	SFACP:	2:351A	/B,4000	C/X,401E	3,402B,403A,42	20A,421X/B,	422A/C,423>	(/C,424A/EX,425A,4 Is Contain	ment Possible?
Co	ast Pilot a	nd Navig	ation Cha	art In	format	ion							
Preva	iling Winds	Tidal Range	Bottom Ty	/pe: N	/lax Wate Depth		Water epths	Currents	Sea Conditions	Fog	Shelter Fro	3	Pilot Requirements
W	6				7	0	0			SEASONA	L NO		<b>✓</b>
Sp	ecific Site	Details											
Site	Site Name			Vesse	el Capac	ities		Site	Capacities and	Facilities			
ID				Max Size	Max Lgth		wing Roo r Dock Fa	m Faciliti	es, capabilities, and		ues or concern	ContainmentPossiblities:	
07	Anchorage 7			Deep	1500	50	3		SITE IS NEAR TRA			There is no potential for primary con-	
									UR ANCHORAGE; 1/2 NAUTICAL MI		M OR DOCK	anchorages in the Central Bay due to knt and turbulence. Similarly there i opportunity for secondary confineme containment.	is no significant

Site Contact/Leasee/Owner:

## TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-H10 (Anchorage 10)





122.47 **Longitude**: 122° 2

122,4705

**Central Bay Anchorages: Anchorage 10** 

2-H10

Type: Anchorage

County: San Francisco, Marin, Alameda, Contra Costa

#### **Location Description:**

Latitude: 37° 51'

Navy Anchorage No. 10 has charted depths to approximately 100 feet (MLLW) and is adjacent to maritime traffic transiting under the Golden Gate Bridge.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW whereas Summer winds are often out of the S and W. Tidal currents in the area would dominate water flows. Based on previous oil spills in San Francisco, releases from this location may threaten maritime traffic throughout the Central Bay and through the Golden Gate.

The Central Bay includes sites of cultural significance and is the most important migratory corridor between the Pacific Ocean and the estuarine and riverine habitats upstream in California. Many properties within the Central Bay are listed on the National Register of Historic Places and many of the islands support concentrations of seabirds, including the largest western gull and Brandt's Cormorants breeding populations in the region. In addition, Chinook Salmon is an Endangered species that may occur in nearby bay waters. Numerous ACP-designated sensitive sites are located throughout the Central Bay and may be threatened by releases from this PPOR site.

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

YBI-(S/F-E/E) peregrine falcon present year-round, nest March-August.

Alcatraz (S/F-E) California brown pelican present mainly March and December.

Crissy Field-(F-E) California seablite plant present year round. (Rare) Point Reyes bird's-beak plant present year round.

Paradise Cove/Tiburon Peninsula - (S/F-E) California brown pelican present .

Keil Cove - (S/F-E) California brown pelican present and (F-T) California redlegged frog present year-round in lagoon.

Angel Island (S/F-E) California brown pelican present.

Paradise Cay Eelgrass & Marina - (S/F-E) California brown pelican present.

Corte Madera Marshes - (S/F-E) California clapper rail, (S-T) black rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak and Marin knotweed (rare plants).

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare plant).

Critical Habitat for TAES:

Rare native plants in Crissy Field restoration area. Habitat for California brown pelican at Angel Island. Alcatraz Island is also "critical habitat" for California brown pelican. Baylands Nature Preserve in Richardson Bay and Corte Madera Marsh State Ecological Reserve (CDFG). Emeryville lagoon/mudflat provides pickleweed habitat for listed species.

#### PPOR Pre-Incident Information Summary for Central Bay Anchorages: Anchorage 10

122.47 **Longitude**: 122° 2

2-H10

Type: Anchorage

County: San Francisco, Marin, Alameda, Contra Costa

Sensitive Non-protected (Non-TAES) Species:

Latitude: 37° 51'

Subsistence-use Species:

SFACP2:351A/B,400C/X,401B,402B,403A,420A,421X/B,422A/C,423X/C,424 A/EX,425A,451A,490A,495A; ESI/SFB-Maps 14,16,17

122,4705

YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March. Alcatraz bird colony rookery and roosting year-round (Western gulls, Brandt's and pelagic cormorants, snowy egrets, black-crowned night herons, pigeon guillemots), herring spawning during winter months, harbor seal and California seal lion haul out at small intertidal rocks NW of the island. Crissy Field (within Golden Gate National Park) is high profile restored native tidal marsh, important resting/foraging habitat for waterbirds/shorebirds/seabirds in urban setting. Richardson Bay marshes support extensive pickleweed and eelgrass beds with herring spawning within bay, extensive mudflats provide foraging for birds and fish, rocky shorelines provide roosting/haul out for birds and harbor seals. Paradise Cove/Tiburon Peninsula supports seabirds including cormorants, harbor seal and sea lion foraging, herring spawning in winter. Keil Cove supports eelgrass beds and herring spawning during winter, Angel Island State Park provides harbor seal/sea lion haulout, seabird (brown pelican, cormorant, gulls) nesting/foraging, herring spawning on eelgrass during winter. Paradise Cay Eelgrass and Marina supports many fish species including herring and shorebirds like western gulls, wading birds, diving birds. Corte Madera Marshes marsh and mudflats heavily used for foraging by migratory shorebirds and waterfowl fall and winter, and year-round by marsh birds, harbor seals haulout and pup in spring. The east section of the Richmond-San Rafael Bridge supports a large double-crested cormorant colony. Castro Rocks used as harbor seal rookery in spring (15 March-10 June), haulout in winter, heavy bird use area (e.g.,cormorants, pelicans). The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants.

Critical Habitat for Non-protected (Non-TAES) Species: Alcatraz Island is "critical habitat" for nesting and roosting seabirds (Brandt's and pelagic cormorants, western gulls, pigeon guillemots) and waders (black-

Critical Habitat for Subsistence Species:

crowned night herons, possibly egrets).

Historic and Cultural Resources:

Alcatraz-National historic prison site (NPS) with buildings. Crissy Field cultural/historic site within Golden Gate National Park. Angel Island cultural/historic site within State Park.

- and and approximate		
Essential Fish Habitat:		
Losertiai i isti i iabitat.		

Central Bay Anchorages: Anchorage 10

2-H10

Type: Anchorage

Latitude: 37° 51' 122.47 Longitude: 122° 2 122.4705

County: San Francisco, Marin, Alameda, Contra Costa

Commercial Fisheries / Species:

Halibut spawning along eastern shores of Angel Island. Herring spawning in several areas including shorelines of Richardson Bay, Tiburon Peninsula, Angel Island, Alcatraz, and Berkeley and Emeryville eelgrass beds. Commercial fishing from TI/YBI.

Recreational Species and Habitat:

Crissy Field heavy recreational use and public interest. Alcatraz and Angel Island recreational use.

#### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Anchorage 10 is near the east shore of Sausalito in Marin County with a population of 247,289; SF population of 764,976.

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Economic Impact on Maritime Commerce and Shipping:

Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Usually none with respect to Anchorage 10

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

#### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details	
T	Sarah Allen	US National Park Service, Pt. Reyes (NS)	(415) 464-5187		
T	John Bradley Refuge Manager	SF Bay National Wildlife Refuge Complex	(510) 792-0222		
E/O	Chevron Long Wharf	Chevron Corp., Operations Control Room (24hrs.)	(510) 242-4494		
E/T	Communication Center	US National Park Service, Golden Gate (NRA)	(415) 561-5505		
E/T	CenCom DPR DISPATCH	CA Dept. of Parks & Recreation	(831) 649-2817		
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833		
	Daphne Hatch	GGNRA	(415) 331-0744		
T	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595		
T	Damian Higgins	U.S. Fish & Wildlife Service	(916) 414-6548		
E/T	John Hitchen Park Supervisor	East Bay Regional Park District	(510) 237-6896		
E/T	Marin Co Parks Dispatch	Marin, County of, Open Space District	(415) 499-6387		
E/O	Marin County OES (Of	Marin, County of, Sheriff/Office of Emergency Serv	(415) 499-6584		
E/T	Dave Matthews Park Superintendent	CA Department of Parks and Recreation	(415) 435-8339		
	Office of Superintendent	GGNRA	(415) 561-4722		
	San Francisco Bay	Regional Water Quality Control Board	(510) 622-2369		

Section SF Section 8000 - 129 October 1, 2008

#### 2-H10 PPOR Pre-Incident Information Summary for Central Bay Anchorages: Anchorage 10 .atitude: 37° 51' 122.47 Longitude: 122° 2 122,4705 Type: County: San Francisco, Marin, Alameda, Contra Costa Anchorage Brian J. Sanford Marin, County of, Parks & Open Space (415) 499-6405 Viktoriya Sirova EnvProtectSpecialist US National Park Service, Golden Gate (NRA) (415) 561-4731 Operations State Water Project O CA Department of Water Resources (916) 574-2714 Brian Ullensvang Env. Programs Chief Golden Gate National Recreation Area - NPS (415) 561-4439 Characteristics and Tactical Considerations Primary Jursidictional Contact: Marine Fire Fighting Resources: USCG Sector SF SF PIER 24: 37-42.42, 122-23.24 Approximate Tug Response Times 1 HOUR List of Nearby Environmentally Sensitive Sites: SFACP2:351A/B,400C/X,401B,402B,403A,420A,421X/B,422A/C,423X/C,424A/EX,425A,4 Is Containment Possible? **Coast Pilot and Navigation Chart Information** Pilot Prevailing Winds Tidal Bottom Type: Max Water Min Water Currents Sea Conditions Shelter From Navigational Approach Fog Depth Depths Severe Storms Requirements Range W 6 MUD 70 0 SEASONAL NO **~** Specific Site Details Site Site Name Vessel Capacities Site Capacities and Facilities ID Max Max Max Swing Room Facilities, capabilities, and any other issues or concern ContainmentPossiblities: Size Lgth Draft or Dock Face 1500 50 3038 SWING ROOM OR DOCK FACE: 1/2 NAUTICAL MILE There is no potential for primary containment for this and most Anchorage 10 Deep anchorages in the Central Bay due to currents exceeding 0.7 knt and turbulence. Similarly there is no significant SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX opportunity for secondary confinement of oil escaping primary containment. SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX: OTHER FIREFIGHTING RESOURCES COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND.

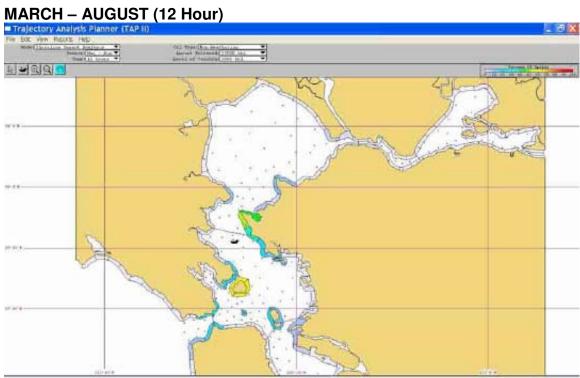
Site Contact/Leasee/Owner:

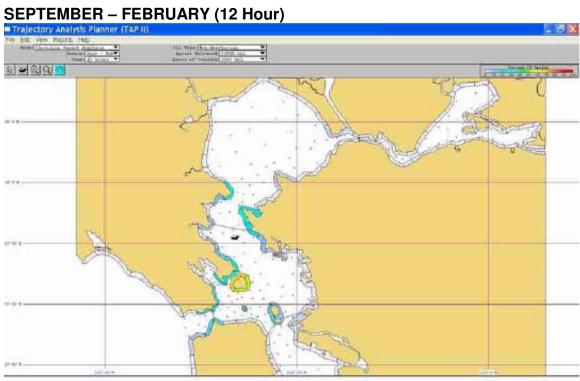
VTS ON CHANNEL 14

### TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-H13 (Anchorage 13)







122.46 **Longitude**: 122° 2

122,4587

**Central Bay Anchorages: Anchorage 13** 

2-H13

Type: Anchorage

County: San Francisco, Marin, Alameda, Contra Costa

Location Description:

Latitude: 37° 55.4'

Explosives Anchorage No. 13 has charted depths to approximately 28 feet (MLLW) and surrounded by a 667 yard Forbidden Anchorage zone.

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW whereas Summer winds are often out of the S and W. Tidal currents in the area would dominate water flows. Based on previous oil spills in San Francisco, releases from this location may threaten maritime traffic throughout the Central Bay and through the Golden Gate.

The Central Bay includes sites of cultural significance and is the most important migratory corridor between the Pacific Ocean and the estuarine and riverine habitats upstream in California. Many properties within the Central Bay are listed on the National Register of Historic Places and many of the islands support concentrations of seabirds, including the largest western gull and Brandt's Cormorants breeding populations in the region. In addition, Chinook Salmon is an Endangered species that may occur in nearby bay waters. Numerous ACP-designated sensitive sites are located throughout the Central Bay and may be threatened by releases from this PPOR site.

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

YBI-(S/F-E/E) peregrine falcon present year-round, nest March-August.

Alcatraz (S/F-E) California brown pelican present mainly March and December.

Crissy Field-(F-E) California seablite plant present year round. (Rare) Point Reyes bird's-beak plant present year round.

Paradise Cove/Tiburon Peninsula - (S/F-E) California brown pelican present .

Keil Cove - (S/F-E) California brown pelican present and (F-T) California redlegged frog present year-round in lagoon.

Angel Island (S/F-E) California brown pelican present.

Paradise Cay Eelgrass & Marina - (S/F-E) California brown pelican present.

Corte Madera Marshes - (S/F-E) California clapper rail, (S-T) black rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak and Marin knotweed (rare plants).

Emeryville Lagoon/Mudflat (S/F-E) California clapper rail, (S/F-E) salt marsh harvest mouse present year-round, as well as North Coast bird's beak (rare plant).

Critical Habitat for TAES:

Rare native plants in Crissy Field restoration area. Habitat for California brown pelican at Angel Island. Alcatraz Island is also "critical habitat" for California brown pelican. Baylands Nature Preserve in Richardson Bay and Corte Madera Marsh State Ecological Reserve (CDFG). Emeryville lagoon/mudflat provides pickleweed habitat for listed species.

#### PPOR Pre-Incident Information Summary for Central Bay Anchorages: Anchorage 13

122.46 **Longitude**: 122° 2

2-H13

Type: Anchorage

County: San Francisco, Marin, Alameda, Contra Costa

Sensitive Non-protected (Non-TAES) Species:

Latitude: 37° 55.4'

SFACP2:351A/B,400C/X,401B,402B,403A,420A,421X/B,422A/C,423X/C,424 A/EX,425A,451A,490A,495A; ESI/SFB-Maps 14,16,17

122.4587

YBI-Small cobble pocket beaches south side of island are pinniped haulout and rookery March-June, bird roosting (double-crested cormorant) year-round and nesting. SF Waterfront herring spawning in winter, birds roost and forage year-round. Pier 39 sea lion haulout year-round, highest numbers August-March. Alcatraz bird colony rookery and roosting year-round (Western gulls, Brandt's and pelagic cormorants, snowy egrets, black-crowned night herons, pigeon guillemots), herring spawning during winter months, harbor seal and California seal lion haul out at small intertidal rocks NW of the island. Crissy Field (within Golden Gate National Park) is high profile restored native tidal marsh, important resting/foraging habitat for waterbirds/shorebirds/seabirds in urban setting. Richardson Bay marshes support extensive pickleweed and eelgrass beds with herring spawning within bay, extensive mudflats provide foraging for birds and fish, rocky shorelines provide roosting/haul out for birds and harbor seals. Paradise Cove/Tiburon Peninsula supports seabirds including cormorants, harbor seal and sea lion foraging, herring spawning in winter. Keil Cove supports eelgrass beds and herring spawning during winter, Angel Island State Park provides harbor seal/sea lion haulout, seabird (brown pelican, cormorant, gulls) nesting/foraging, herring spawning on eelgrass during winter. Paradise Cay Eelgrass and Marina supports many fish species including herring and shorebirds like western gulls, wading birds, diving birds. Corte Madera Marshes marsh and mudflats heavily used for foraging by migratory shorebirds and waterfowl fall and winter, and year-round by marsh birds, harbor seals haulout and pup in spring. The east section of the Richmond-San Rafael Bridge supports a large double-crested cormorant colony. Castro Rocks used as harbor seal rookery in spring (15 March-10 June), haulout in winter, heavy bird use area (e.g.,cormorants, pelicans). The east span of the Bay Bridge supports a large double-crested cormorant colony. Emeryville Lagoon/Mudflat important habitat for seabirds, shorebirds, migratory waterfowl for roost/forage, listed species, rare plants.

Alcatraz Island is "critical habitat" for nesting and roosting seabirds (Brandt's and pelagic cormorants, western gulls, pigeon guillemots) and waders (blackcrowned night herons, possibly egrets).

Critical Habitat for Non-protected (Non-TAES) Species:

Critical	Lahitat	for	Subsistence	Chaoina

Historic and Cultural Resources:

Alcatraz-National historic prison site (NPS) with buildings. Crissy Field cultural/historic site within Golden Gate National Park. Angel Island cultural/historic site within State Park.

Sector SF

Essential Fish Habitat:

Section 8000 - 133

October 1, 2008

**Central Bay Anchorages: Anchorage 13** 

2-H13

Type: Anchorage

Latitude: 37° 55.4' 122.46 Longitude: 122° 2 122.4587 County: San Francisco, Marin, Alameda, Contra Costa

Commercial Fisheries / Species:

Halibut spawning along eastern shores of Angel Island. Herring spawning in several areas including shorelines of Richardson Bay, Tiburon Peninsula, Angel Island, Alcatraz, and Berkeley and Emeryville eelgrass beds. Commercial fishing from TI/YBI.

Recreational Species and Habitat:

Crissy Field heavy recreational use and public interest. Alcatraz and Angel Island recreational use.

#### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Anchorage 13 near Marin County population of 247,289; near San Rafael with a population of 55,550; and Richmond is to the east with a population of 103,468.

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Economic Impact on Maritime Commerce and Shipping:

Near shipping channel. Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Nothing significant other than onward movements of cargoes from ships that may be stuck at anchorages

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

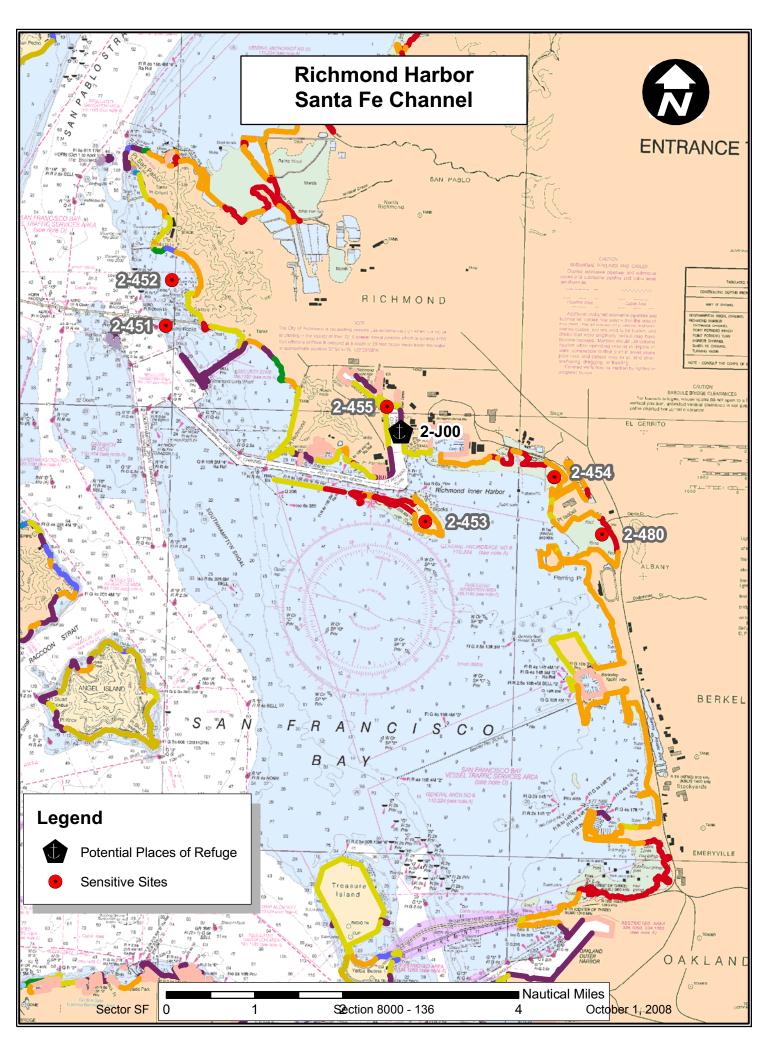
#### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details	
T	Sarah Allen	US National Park Service, Pt. Reyes (NS)	(415) 464-5187		
Т	John Bradley Refuge Manager	SF Bay National Wildlife Refuge Complex	(510) 792-0222		
E/O	Chevron Long Wharf	Chevron Corp., Operations Control Room (24hrs.)	(510) 242-4494		
E/T	Communication Center	US National Park Service, Golden Gate (NRA)	(415) 561-5505		
E/T	CenCom DPR DISPATCH	CA Dept. of Parks & Recreation	(831) 649-2817		
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833		
	Daphne Hatch	GGNRA	(415) 331-0744		
Т	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595		
Т	Damian Higgins	U.S. Fish & Wildlife Service	(916) 414-6548		
E/T	John Hitchen Park Supervisor	East Bay Regional Park District	(510) 237-6896		
E/T	Marin Co Parks Dispatch	Marin, County of, Open Space District	(415) 499-6387		
E/O	Marin County OES (Of	Marin, County of, Sheriff/Office of Emergency Serv	(415) 499-6584		
E/T	Dave Matthews Park Superintendent	CA Department of Parks and Recreation	(415) 435-8339		
	Office of Superintendent	GGNRA	(415) 561-4722		
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Section SF Section 8000 - 134 October 1, 2008

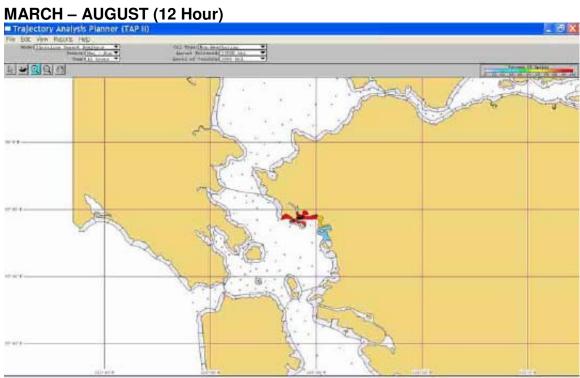
			cident Ir					Centi	ral Bay Anch	orages: Anc	horage 1	3	2-H13
	i <b>de:</b> 37 ty: San		4' 122.46 isco, Marin, A	Longitud			22.4587	i					Type: Anchorage
	E/O T O T	Brian Vikt Open	Francisco Bay n J. Sanford oriya Sirova E rations State W n Ullensvang I	ater Project		;	Marin, Co US Nation CA Depar	ounty of, P nal Park So tment of V	ality Control Board Parks & Open Space ervice, Golden Gate (N Water Resources aal Recreation Area - N	(916) 574	9-6405 1-4731 4-2714		
			ics and Tall Contact:	Tactical USCG S			ions		Marine Fire	Fighting Resources	s: SF PIEF	R 24: 37-42.42, 122-23.24	
Appro	ximate T	Tug R	esponse Time	s 1 HOUF	?								
	-		onmentally Se		_		•	0C/X,40	01B,402B,403A,4	120A,421X/B,42	22A/C,423>	(/C,424A/EX,425A,4 Is Contain	ment Possible?
Prev	ailing Wii	nds	Tidal Range	Bottom Typ		ax Water N	Min Water Depths	Curren	Sea Condition	o o	Shelter Fro Severe Stor	3	Pilot Requirements
W	oooifio	Site.	J.			28	0			SEASONAL			
Site			Details		Vesse	el Capacities		Sit	te Capacities an	d Facilities			
ID				Ī	Max Size	Max Max Lgth Draft	Swing Ro	oom Fac	cilities, capabilities, a		s or concern	ContainmentPossiblities:	
13	Anchor	age 1	3	l	Оеер	1000 25	5	OR SF	IS SITE IS NEAR TR R DOCK FACE: 1/2 N PIER 22 1/2 IS HOM ID PHOENIX	AUTICAL MILE		There is no potential for primary con anchorages in the Central Bay due to knt and turbulence. Similarly there opportunity for secondary confinement.	o currents exceeding 0.7 is no significant
								AN CO	PIER 22 1/2 IS HOM ID PHOENIX; OTHER IME FROM FOSS/CH CHMOND.	R FIREFIGHTING F	RESOURCES		

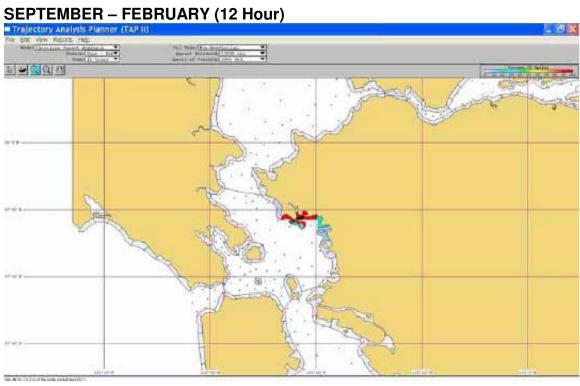
Site Contact/Leasee/Owner:



### TRAJECTORY ANALYSIS PLANNER (TAP Model) Location: 2-J00 (Port of Richmond: Terminals 2-7)







#### PPOR Pre-Incident Information Summary for Port of Richmond: Terminals 2-7

122.36 **Longitude:** 122° 2

2-J00

Latitude: 37° 54.8' County: Contra Costa

**Location Description:** 

Terminals 2-7 of the Port of Richmond occupy a total of 195 acres and approximately 5,290 linear feet of berthing space managed by multiple operators. All berths have intercontinental rail access. The site is directly accessible from the open bay; however, the existing entrance channel has sharp turns that are increasingly difficult for large vessels to navigate, especially against strong winds, waves and currents, at night and under foggy conditions. The site has nearby access to Interstates 80 and 580.

Terminal 2 – 720 ft length (35 MLLW). Handles liquid bulk cargoes. 140,000 sgft covered storage available on-site. 8 acres

Terminal 3 – 1,250 ft length (35 MLLW). Handles containers and breakbullk cargoes. 80,000 sqft covered storage on-site. 20

Terminal 4 – 1,000 ft length (28 MLLW). 12,000 sqft covered storage on-site. 37

Terminals 5-7 - Total length 2,320 ft (35 MLLW). Handles autos, breakbullk, dry and liquid bulk cargoes. Five dry docks and 170,000 sq ft covered storage onsite. 130

Though winds throughout the bay are geographically variable, Spring winds in this area are typically out of the SW to NW whereas Summer winds are often out of the S and W. Tidal currents in the area would dominate water flows and near buoy no. 4 off Point Richmond may be as high as 1.0knot floods (to the east) and near 1.5knot ebbs (to the west) while within Santa Fe channel they are generally weak (<1.0knot).

Concrete bulkhead and riprap shorelines dominate the area with little/no sensitive shoreline habitat or shallow water habitats known nearby. Santa Fe Channel (ACP-designated sensitive site 2-445X) is located within the Port area and Brook's Island (ACP site 2-453A) and Richmond Inner Harbor/Hoffman Marsh (ACP site 2-454A) are located near this PPOR site. Santa Fe Channel includes multiple small marinas and commercial facilities. Brook's Island includes shallow eelgrass beds, Harbor Seal haulouts and large numbers of nesting terns and shorebirds. Richmond Inner Harbor/Hoffman Marsh includes shallow eelgrass beds, large wintering concentrations of seabirds and two endangered species: the California Clapper Rail and Saltmarsh Harvest Mouse. In addition, Chinook Salmon is an Endangered species that may occur in nearby bay waters.

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

California clapper rail (S/F-E): Hoffman/Stege marshes - Nest March-July, present year-round; Albany Marsh: present year-round.

Saltmarsh harvest mouse (S/F-E): Hoffman/Stege marshes; present yearround.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:451A,452A,453A,454A,455C/X,480A; ESI/SFB-Maps14,15 The east section of the Richmond-San Rafael Bridge supports a large doublecrested cormorant colony. Castro Rocks used as harbor seal rookery in spring (15 March-10 June), haulout in winter, heavy bird use area (e.g.,cormorants, pelicans). Extensive eelgrass beds present in shallow (<10 foot) nearshore areas, most vulnerable during spring/summer at low tides and provide for spawning of herring in winter, food for waterfowl in spring, nursery area for fish and invertebrates summer and fall. Brook's Island high ecological Critical Habitat for TAES:

Hoffman/Stege and Albany marshes provide habitat for listed species.

Critical Habitat for Non-protected (Non-TAES) Species:

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#### PPOR Pre-Incident Information Summary for Port of Richmond: Terminals 2-7

122.36 **Longitude**: 122° 2

2-J00

atitude: 37° 54.8' County: Contra Costa

sensitivity of marsh and mudflat (invertebrate) sites, especially March-June during breeding of ground nesting species (e.g. Caspian tern restoration), harbor seal haulout. Albany Marsh extensive mudflats and baywaters important habitat for foraging/resting birds. Abundant waterfowl and

waterbirds (some migratory), including ducks, loons, grebes, scoters, and gulls use area during wintering period (September-April).

Subsistence-use Species:

Essential Fish Habitat:

Mudflats have extensive infauna and wide variety of fish forage in area during high tides.

Commercial Fisheries / Species:

Eelgrass beds extremely valuable habitat for herring spawning (fishery) in winter.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Ohlone cultural sites nearby, historic buildings on former Point Molate Naval Fuel Depot. Historic use of entire Richmond shoreline, including use as Chinese fishing village. Brook's Island high cultural, historic sensitivity.

Recreational Species and Habitat:

#### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

CITY OF RICHMOND POPULATION IS 103.818.

Economic Impact on Maritime Commerce and Shipping:

Port of Richmond has a large scale automobile processing facility receiving Roll-on/Roll-off ships. Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can ruin recreational and commericial fishing.

Economic Impact on Recreational Fishing and Marine Tourism:

San Francisco has a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can ruin recreational and commericial fishing.

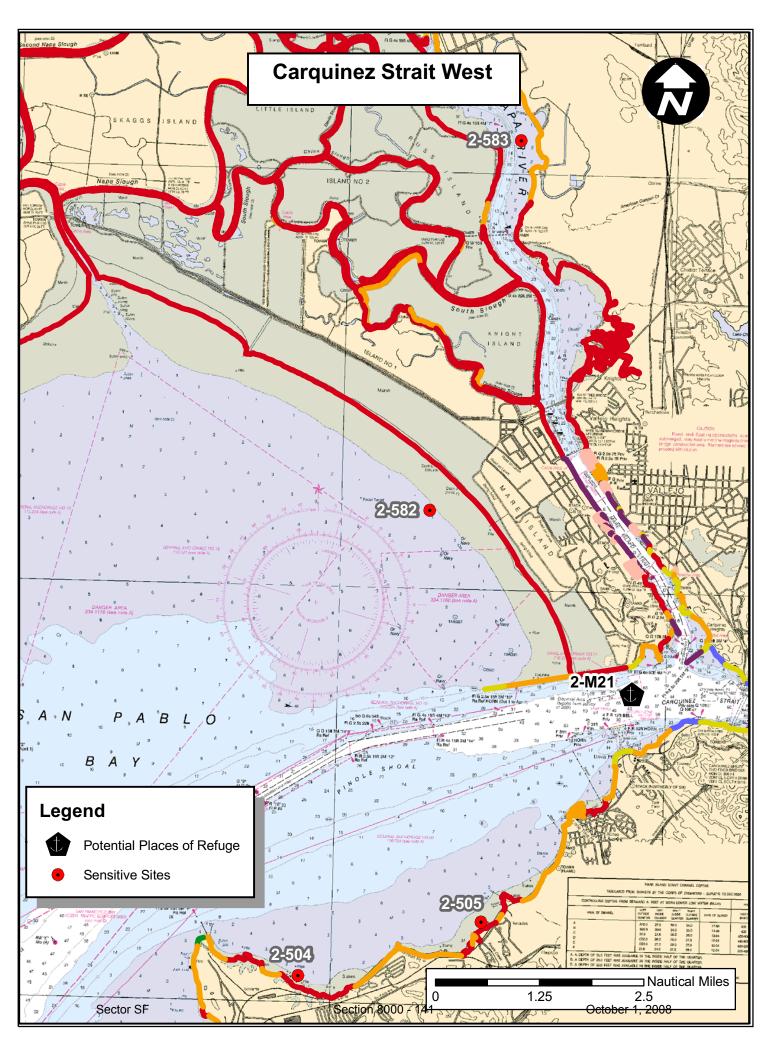
#### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
T	Sarah Allen	US National Park Service, Pt. Reyes (NS)	(415) 464-5187	
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833	
T	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595	

October 1, 2008 Sector Si Section 8000 - 139

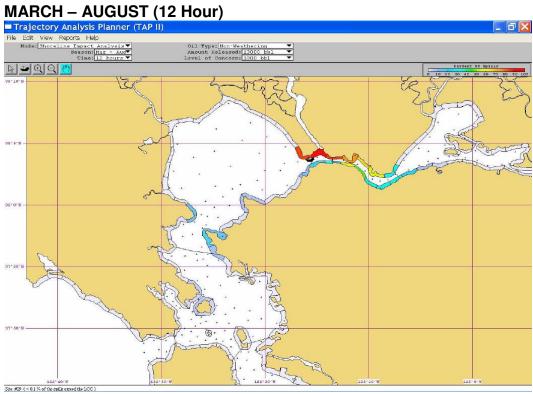
PPOR Pre-Incident Information Summary for Latitude: 37° 54.8' 122.36 Longitude: 122° 2 122.3617  Type  County: Contra Costa  T Damian Higgins	0
County: Contra Costa  T Damian Higgins U.S. Fish & Wildlife Service (916) 414-6548  E/T John Hitchen Park Supervisor East Bay Regional Park District (510) 237-6896  E/T Cyndy Shafer CA Department of Parks and Recreation (916) 358-1300  T Viktoriya Sirova EnvProtectSpecialist US National Park Service, Golden Gate (NRA) (415) 561-4731  E/T Kevin Takei Park Supervisor East Bay Regional Park District (510) 235-1631  T Brian Ullensvang Env. Programs Chief Golden Gate National Recreation Area - NPS (415) 561-4439  Characteristics and Tactical Considerations  Primary Jursidictional Contact: PORT OF RICHMOND AND CITY OF RICHMOND  Approximate Tug Response Times 30 MINUTES  List of Nearby Environmentally Sensitive Sites: SFACP2:451A,452A,453A,454A,455C/X,480A; ESI/SFB - Maps 14,15  Is Containment Possible?  Coast Pilot and Navigation Chart Information	
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Primary Jursidictional Contact:  PORT OF RICHMOND AND CITY OF RICHMOND AND CITY OF RICHMOND  Approximate Tug Response Times  30 MINUTES  List of Nearby Environmentally Sensitive Sites: SFACP2:451A,452A,453A,454A,455C/X,480A; ESI/SFB - Maps 14,15  Coast Pilot and Navigation Chart Information  Marine Fire Fighting Resources: SF PIER 24: 37-42.42, 122-23.24  SF PIER 24: 37-42.42, 122-23.24  Is Containment Possible?	
Approximate Tug Response Times 30 MINUTES  List of Nearby Environmentally Sensitive Sites: SFACP2:451A,452A,453A,454A,455C/X,480A; ESI/SFB - Maps 14,15  Coast Pilot and Navigation Chart Information	
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Coast Pilot and Navigation Chart Information	
Coast Pilot and Navigation Chart Information	
Drovoiling Mindo   Tidol   Bottom Typo: May Motor   Min Motor   Currento   Con Conditions   Eag   Chalter From   Novinctional Approach   Dilat	
Prevailing Winds Tidal Range Bottom Type: Max Water Depth Depths Currents Sea Conditions Fog Shelter From Severe Storms Navigational Approach Requirement	s
W 6 MUD 37 0 SEASONAL YES ✓	
Specific Site Details	
Site   Site Name   Vessel Capacities   Site Capacities and Facilities	
Size   Lgth   Draft   or Dock Face	
00 Terminals 2-7 Deep 900 37 1000 SF PIER 22 1/2 IS FIRE BOAT GUARDIAN AND Primary containment is variable due to local currents	and
PHOENIX; OTHER FF RESOURCES MAY COME topography. Secondary confinement to the channel	better
FROM OAKLAND, CHEVRON AND RICHMOND. than in most locals in SF bay.	
SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN	
AND PHOENIX; OTHER FIREFIGHTING RESOURCES	
COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND.	

Site Contact/Leasee/Owner:

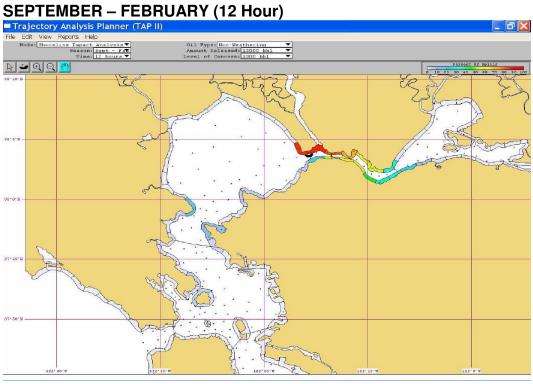


## TRAJECTORY ANALYSIS PLANNER (TAP Model)

Location: 2-M21 (Carquinez Strait West: Anchorage 21)







### PPOR Pre-Incident Information Summary for 122.26 Longitude:

Carquinez Strait West: Anchorage 21

2-M21 Type:

Latitude: 38° 3.8' County: Solano

Anchorage

### **Location Description:**

Navy Anchorage No. 21 has charted depths to approximately 67 feet (MLLW) and occurs at the West end of and within the designated navigation channel of the Carquinez Strait.

Prevailing winds in the area generally blow from the westerly direction but may fluctuate due to local topography. Tidal currents can be strong (up to 3.5 knots) throughout the Strait and would dominate water flows. Releases from this location may threaten maritime traffic and sensitive sites throughout the Carquinez Strait and parts of Suisun Bay.

The Carguinez Strait is an important economic and ecological corridor between the Pacific Ocean and the estuarine and riverine areas/habitats upstream. Marshes in this area support Federally-listed Endangered populations of California Clapper Rail, Salt Marsh Harvest mice and Soft Bird's Beak, a shoreline plant species as well as the (State-listed) threatened California Black Rail. In addition, California Least Tern, Chinook Salmon (both Endangered species) and Delta Smelt (a Threatened species) occur in nearby bay waters and the waters of the Carquinez Strait and Suisun Bay. Numerous ACP-designated sensitive sites are located throughout the Strait and may be threatened by releases from this PPOR site.

### Natural Resource Concerns and Issues for this Place / Site

122° 1

Threatened and Endangered Species (TAES):

Pinole Point Marshes-North - (S/F E/E) California clapper rail, (S-T) black rail, (F-E) soft bird's beak present.

Pinole Creek and Wetlands – (F-T) steelhead in creek, (S-T) black rail in wetlands.

NE San Pablo Bay – (S/F E/E) California clapper rail, (S-T) black rail, (S/F E/E) salt marsh harvest mouse, (SOSC) Suisun shrew, (F-E) soft bird's beak, (Rare plant) Suisun marsh aster.

Napa River Marshes – (S/F E/E) California clapper rail, (S-T) black rail, (S/F E/E) salt marsh harvest mouse, (F E) soft bird's beak, (Rare plants) Marin knotweed, Delta tule pea, Suisun marsh aster, Mason's lilaeopsis.

West Carquinez Strait supports (S/F E/E) winter-run Chinook salmon and (S/F T/T) delta smelt.

Sensitive Non-protected (Non-TAES) Species:

SFACP2: 504A,505A,582A,583A; ESI/SFB-Maps 3 & 8.

Pinole Point Marshes north and mudflats support migratory shorebirds abundant in spring and fall, waterfowl abundant winter, and San Pablo vole. Cordgrass, salt marsh, mudflat, eelgrass in vicinity of Pinole Creek support shorebirds, waterfowl, gulls, clam beds. NE San Pablo Bay supports abundance resting/feeding shorebirds, during fall/winter thousands of

Critical Habitat for TAES:

California clapper rails are present year-round in many marshes in this area. There are high densities of salt marsh harvest mice in many marshes within this area.

Critical Habitat for Non-protected (Non-TAES) Species:

Carquinez Strait West: Anchorage 21

2-M21

Type: Anchorage

**Latitude:** 38° 3.8' 122.26 **Longitude:** County: Solano

122.26 **Longitude:** 122° 1 122.258

waterfowl, double-crested cormorants present year-round. Napa River marshes support abundant resting/feeding shorebirds, Sacramento split-tail.

Subsistence-use Species:

Essential Fish Habitat:

Variety of fish including surf perch, flatfish, sturgeon, striped bass, salmon present in waters over mudflats at Pinole Point. Fish inhabit Pinole Creek.

Commercial Fisheries / Species:

Pacific rock and red rock crab found offshore of Pinole Point. Juvenile Dungeness crab found west end Carquinez Strait (April-February).

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Historic sites on uplands at Pinole Point.

Recreational Species and Habitat:

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

The strait forms part of the border between Solano and Contra Costa counties. The populated cities of Benicia and Vallejo lie on the north side of the strait, while Martinez, Port Costa and Crockett sit on the southern end.

Economic Impact on Commercial Fishing and Aquaculture:

Commercial charter fishing boats operate from the harbor of San Pablo. The fishery in the Carquinez Strait offers striped bass, sturgeon, shark, some founder and catfish.

Economic Impact on Recreational Fishing and Marine Tourism:

Popular tourist attractions at regional parks lining the strait. Tours, trails, and wildlife viewing is available at shoreline regional parks.Recreational attractions include San Pablo Bay Regional Trail. Multiple fishing piers and marinas located in the vicinity.

Economic Impact on Maritime Commerce and Shipping:

The channel is navigable and is used for commercial and military shipping. Deep water ship traffic bound for both the Port of Sacramento and Port of Stockton traverse the strait. Most large, deep draft commercial ships transit the Bay to and from the refineries dotting the Carquinez Strait area. Oil and chemical tankers frequent the Carquinez Strait. California Maritime is at the western end of the strait on the northern waterfront.

Economic Impact on Non-maritime Commerce:

Other Economic Impacts:

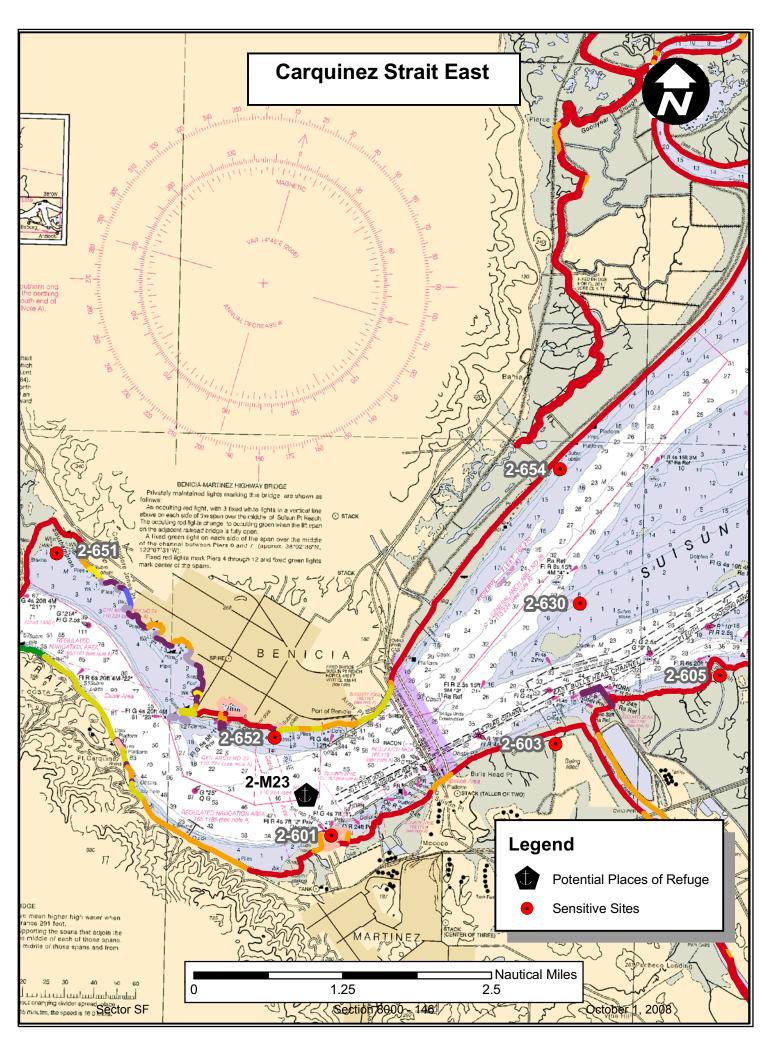
Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas.

### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
E/O	Michael Bloom BRAC Env. Coord.	Mare Island Naval Shipyard	(619) 532-0967	
E/T	EBRP Dispatch EBRP	East Bay Regional Park District	(510) 881-1833	
E/O	Jim Ferris Environmental	Conoco Phillips Rodeo Refinery	(510) 245-4517	
T	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595	
T	Damian Higgins	U.S. Fish & Wildlife Service	(916) 414-6548	
E/T	John Hitchen Park Supervisor	East Bay Regional Park District	(510) 237-6896	

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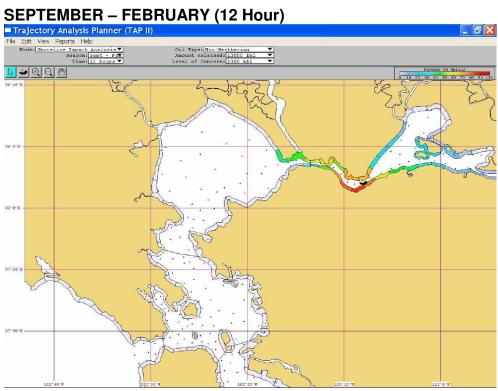
PPOR Pre-Incident Information Summary for Carquinez Strait West: Anchorage 21									2-M21		
Latitu	ude: 38° 3.8'	122.26	6 Longitude:	122° 1	122.2583	·			J		Type:
Coun	ty: Solano					•					Anchorage
	E/T Bill N	Nichols			East Bay	Regional Park	District	(510) 22	28-0112		
Cha	aracteristi	ics and	Tactical C	onsider	ations						
	ary Jursidictiona		VTS	onordon			Marine Fire F	ighting Resource	es: None		
Appro	oximate Tug Re	esponse Time	es						<u> </u>		
List o	f Nearby Enviro	onmentally S	ensitive Sites:	SFACP2:	504A,505	A,582A,58	33A; ESI/SFB-M	laps 3 & 8.		Is Contai	nment Possible?
С	oast Pilot a	nd Navig	ation Chart		•		,				
Prev	ailing Winds	Tidal Range	Bottom Type:	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
NW	5'	'	Mud/Sand	73	40	3 Knots	Minimum	Yes - Winter	Minimum	East-West	<b>✓</b>
S	pecific Site	Details									
Site			Ves	ssel Capaciti	es	Site	Capacities and	Facilities			
ID			Max Siz			oom Facilit	ies, capabilities, and		es or concern Cor	ntainmentPossiblities:	
21	Anchorage 21		Dee	- u	38	1100 Limite	d by Pinole Shoal @	38' for transit.	Check current		
						on NC	OAA Ports located a	t Tesoro Pier (M	artinez 5).		
Site C	Contact/Leasee/	/Owner:					·	_		·	·



### TRAJECTORY ANALYSIS PLANNER (TAP Model) Location: 2-M23 (Carquinez Strait East: Anchorage 23)







Carquinez Strait East: Anchorage 23

2-M23

Type: Anchorage

Latitude: 38° 2'
County: Solano

Location Description:

General Anchorage No. 23 has charted depths to approximately 49 feet (MLLW) and occurs near the East end of and within the designated navigation channel of the Carguinez Strait.

Prevailing winds in the area generally blow from the westerly direction but may fluctuate due to local topography. Tidal currents can be strong (up to nearly 4.0 knots) throughout the Strait and would dominate water flows. Releases from this location may threaten maritime traffic and sensitive sites throughout the Carquinez Strait and parts of Suisun Bay.

The Carquinez Strait is an important economic and ecological corridor between the Pacific Ocean and the estuarine and riverine areas/habitats upstream. Marshes in this area support Federally-listed Endangered populations of California Clapper Rail, Salt Marsh Harvest mice and Soft Bird's Beak, a shoreline plant species as well as the (State-listed) threatened California Black Rail. In addition, California Least Tern, Chinook Salmon (both Endangered species) and Delta Smelt (a Threatened species) occur in nearby bay waters and the waters of the Carquinez Strait and Suisun Bay. Numerous ACP-designated sensitive sites are located throughout the Strait and may be threatened by releases from this PPOR site.

### Natural Resource Concerns and Issues for this Place / Site

122.14 Longitude: 122° 8. 122.1417

Threatened and Endangered Species (TAES):

Martinez Marsh - (S/F E/E) California clapper rail and (S-T) black rail may use marshes occasionally, (S/F E/E) salt marsh harvest mouse and (S/F E/E) salt marsh wandering shrew, (F-E) soft bird's beak, (Rare plant) Delta tule pea. Bull's Head Marsh and Pacheco Creek – (S/F E/E) California clapper rail, (S/F E/E) salt marsh harvest mouse, (S/F E/E) salt marsh ornate shrew. Hastings Slough and Point Edith Marshes – (S/F E/E) California clapper rail, (S-T) black rail, (S/F E/E) salt marsh harvest mouse, (SOSCs) salt marsh common yellowthroat and Suisun song sparrow, (F-E) soft bird's beak, (Rare plants) Mason's lilaeopsis, Delta tule pea on Seal Islands.

Southampton Bay - (S/F E/E) California clapper rail, (S-T) black rail, (S/F E/E) salt marsh harvest mouse, (F-E) soft bird's beak.

Benicia Marsh - (S/F E/E) salt marsh harvest mouse may occur, (SOSCs) Suisun common yellowthroat and Suisun song sparrow, (Rare plants) Suisun marsh aster may occur.

Goodyear Marsh - (S/F E/E) California clapper rail, (S-T) black rail, (S/F E/E) salt marsh harvest mouse, (SOSCs) Suisun common yellowthroat and Suisun song sparrow, (F-E) soft bird's beak, (Rare plants) Suisun marsh aster, Delta tule pea. Goodyear sloughs support (S/F T/T) delta smelt.

East Carquinez Strait support (S/F E/E) winter-run Chinook salmon and (S/F T/T) delta smelt. (S/F E/E) peregrine falcon present at Benicia Bridge (March-August) and found in waters off Goodyear Marsh (November-February)

Critical Habitat for Non-protected (Non-TAES) Species:

Sensitive Non-protected (Non-TAES) Species:

SFACP2: 601A,603A,605A,630B/C,651A,652A,654A; ESI/SFB-Maps 9 &

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Critical Habitat for TAES:

Goodyear Marsh designated wildlife refuge.

### 2-M23 PPOR Pre-Incident Information Summary for Carquinez Strait East: Anchorage 23 Latitude: 38° 2' 122.14 Longitude: 122° 8. 122.1417 Type: County: Solano Anchorage 10. Martinez Marsh supports marsh birds, ducks, shorebirds, and winter migratory waterfowl. Sheltered tidal flats support infauna and bird and fish foraging. Bull's Head Marsh/Pacheco Creek show habitat variation and support variety of wading and marsh birds year-round and migratory birds and ducks in winter, salt marsh ornate shrew. Hastings Slough and Point Edith marshes of highest concern – immediate vulnerability to spreading due to large tidal prism, and show habitat variation. Suisun Shoal provides feeding habitat for fish when covered, resting/feeding habitat for water and shorebirds when exposed. Southampton Bay provides breeding/wintering habitat for many bird species (e.g., canvasback ducks in winter) with mudflats that extend more than 100 yards, salt marsh ornate shrew. Benicia Marsh and tidal flats provide habitat for marsh birds and waterfowl with 100 mallards and a dozen Canada geese at west end, and 400-1000 golden eye, scaups, and other birds in winter. The extensive Goodyear Marsh supports waterfowl, shorebirds, marsh birds for breeding, feeding, wintering and is managed as a waterfowl refuge. Goodyear also supports variety of semi-aquatic mammals including muskrat, beaver, mink, river otter and raccoon. Subsistence-use Species: Critical Habitat for Subsistence Species: Essential Fish Habitat: Historic and Cultural Resources:

Commercial Fisheries / Species:

Juvenile California bay shrimp (March-October; adults present year-round. Juvenile Dungeness crab found east end Carquinez Strait (April-December).

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

The strait forms part of the border between Solano and Contra Costa counties. The populated cities of Benicia and Vallejo lie on the north side of the strait, while Martinez, Port Costa and Crockett sit on the southern end.

Economic Impact on Commercial Fishing and Aquaculture:

The fishery in the Carquinez Strait offers striped bass, sturgeon, shark, some founder and catfish.

Economic Impact on Maritime Commerce and Shipping:

The channel is navigable and is used for commercial and military shipping. Deep water ship traffic bound for both the Port of Sacramento and Port of Stockton traverse the strait. Most large, deep draft commercial ships transit the Bay to and from the refineries dotting the Carquinez Strait area. Oil and chemical tankers frequent the Carquinez Strait.

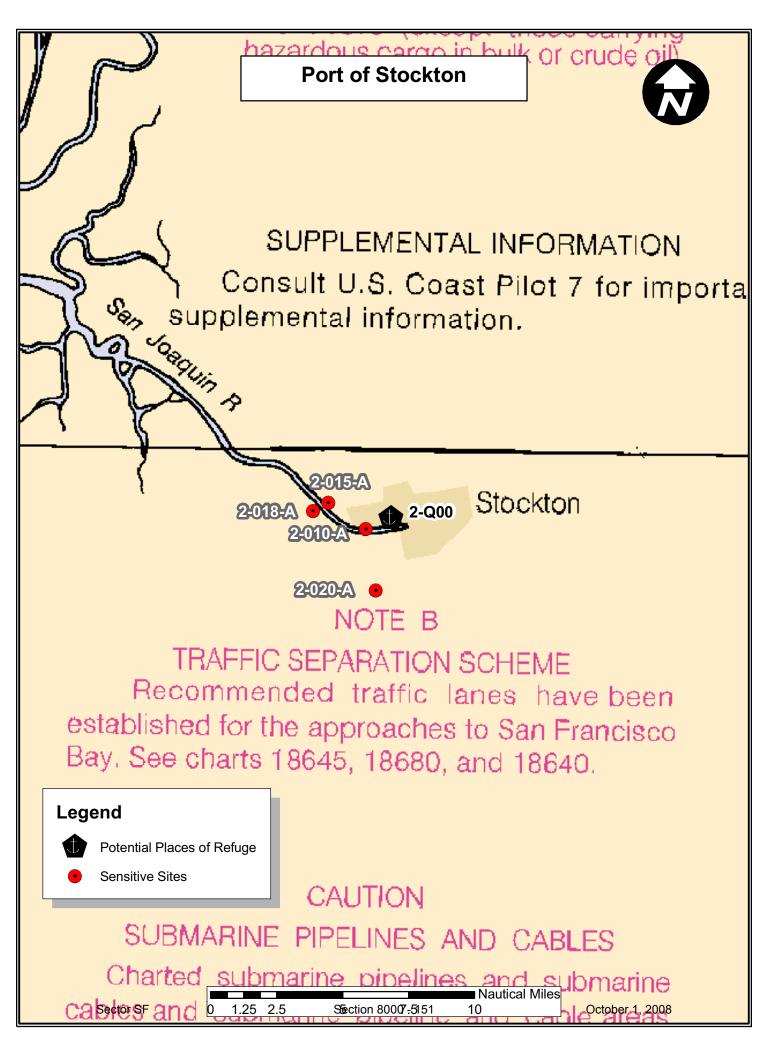
Economic Impact on Non-maritime Commerce:

Recreational Species and Habitat:

Sector SF Section 8000 - 149 October 1, 2008

POR I			Informatio	on Summa : 122° 8. 1	1 <b>ry for</b> 22.1417	Carquir 	nez Strait Ea	ast: Ancho	rage 23		<b>2-M23</b> Type:
ounty: So	lano										Anchorage
onomic I	npact o	n Recreation	nal Fishing and	Marine Tourism	:		Oth	ner Economic Im	pacts:		
Idlife vi traction	ewing s inclu	is availabl	le at shorelir ez Regional	parks lining ne regional p Shoreline Ti	arks.Recr	eational	mo			ous substance or a catastro desire to stay away from a	•
Stake	hold	er List fo	or this Pla	ace / Site							
	Name	e / Title			Organ	ization			Phone	more details	
O	City	Of Benicia			Benicia,	City of					
E/O	Blac	de Benson En	vironmental		Tesoro G	olden Eagle R	efinery	(925) 37	2-3042		
E/T	EBI	RP Dispatch E	EBRP		East Bay	Regional Park	District	(510) 88	31-1833		
T	John	n Henderson 1	FWS Biologist		US Fish &	& Wildlife Ser	vice, Environmental	Contam (916) 41	4-6595		
T	Dan	nian Higgins			U.S. Fish	& Wildlife Se	rvice	(916) 41	4-6548		
E/O	Ton	n Kellogg Eng	gineer		MOTCO	- US Army		(925) 24	6-4110		
E/T	Bill	Nichols			East Bay	Regional Park	District	(510) 22	8-0112		
E/O Steve Overman Environmental Shell Martinez Refinery				7	(925) 31	3-3281					
E/O	Nic	k Stubblefield	Environmental		Valero Re	efining Compa	ny - Benicia	(707) 74	5-7883		
E/O	Bar	ry Wysling			Martinez,	City of		(510) 31	3-0938		
nary Jur proximat	sidictior e Tug R	nal Contact: Response Tim	VTS	Considera		2 6024 2 6		ighting Resource		SI/SFB Maps: 9, 10 Is Conta	inment Possible?
				t Information	•	<u> 2-003A,2-0</u>	103A,2-030B/C	, <u>z-051A,z-05</u> ,	2A,2-054A E	51/3FB Waps. 9, 10 10 00ma	minera i ossibie:
evailing '		Tidal Range			Min Water Depths	Currents	Sea Conditions	Fog	Shelter Fron Severe Storn		Pilot Requirements
V	;	5'	Mud	49	31	3 Knots	Minimal	Yes - Winter	Minimal	East-West	
	ic Site	e Details									
Specif		<i>-</i>	V	/essel Capacitie	s	Site	Capacities and	l Facilities			
•	Name				-					0	
Specifite Site	Name		N	Max Max Max Size Lgth Dra	Swing Rote		es, capabilities, an	d any other issue	es or concern	ContainmentPossiblities:	
e Site	Name orage 2	23	N	Size Lgth Dra		Face 1100 Limited	es, capabilities, an d by Pinole Shoal ( AA Ports located a	@ 38' for transit.	Check current	ContainmentPossibilities:	

Site Contact/Leasee/Owner:



PPOR Pre-Incident Information Summary for Port of Stockton & San Joaquin River: any site

2-Q00

Latitude: 37° 57.2' County: San Joaquin

### **Location Description:**

The Port of Stockton encompasses a 2,000acre operating area. The Port has berthing space for 17 vessels, 1.1 million square feet of dockside transit sheds and shipside rail trackage, 7.7 million square feet of warehousing for both dry bulk and general cargoes, including steel. Each warehouse is also served by rail. The site is accessible by water only by the Stockton Deep Water Channel (35 feet MLLW) off the San Joaquin River, is one-mile from Interstate 5 and is serviced by two transcontinental railroads.

Winds from the S predominate throughout the Central Valley.

### Natural Resource Concerns and Issues for this Place / Site

121.32 Longitude: 121° 1 121.3183

Threatened and Endangered Species (TAES):

San Joaquin River, Port of Stockton – (F/S T/T) Swainson's hawk, (SOSC) burrowing owl nest and forage north of and along harbor, (F/S E/E) Small numbers Delta smelt present (November-December).

Calaveras River Mouth at San Joaquin River - (F/S T/T) Swainson's hawk, (SOSC) burrowing owl nest and forage along river, (F/S E/E) Small numbers Delta smelt present (November-December), (F/S E/E) Winter run Chinook salmon (October-May), (Rare plant) California hibiscus.

Burns Cutoff at Rough & Ready Island – (F/S E/E) Small numbers Delta smelt present (November-December), (F/S E/E) winter-run Chinook salmon smolts pass through (October-May), (Rare plant) historical record of Delta tule pea. San Joaquin River, Stockton to Lathrop Reach - (F/S T/T) Swainson's hawk, (SOSC) tri-colored blackbird nest and forage along reach, (Rare plant) slough thistle.

Sensitive Non-protected (Non-TAES) Species:

SFACP2: 010A,015A,018A,020A; ESI/SFB-No maps for this area. San Joaquin River, Port of Stockton – Freshwater invertebrates are those typical of low-salinity Delta waters. Calaveras River Mouth supports waterbirds and marsh birds. Burns Cutoff functions as throughway for salmon smolts and juvenile/adult striped bass, and supports waterbirds and marsh birds. San Joaquin River, Lathrop Reach salmonids migrate through area, other vertebrates include riparian and semi-aquatic species such as deer, fox, raccoon, mink, muskrat, beaver, snakes, lizards, amphibians, etc.

Essential Fish Habitat:

Calaveras River supports small salmon run.

Critical Habitat for TAES:

Calaveras River Mouth, Burns Cutoff, Lathrop Reach, San Joaquin River contain marshy margins, islands, and riparian growth that may support the (SOSC) western pond turtle.

	Critical Habitat fo	Non-prote	ected (Non-	TAES) S	pecies:
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Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

# PPOR Pre-Incident Information Summary for Latitude: 37° 57.2' 121.32 Longitude: 121° 1 121.3183 County: San Joaquin

### Port of Stockton & San Joaquin River: any site

2-Q00

ype:

Commercial Fisheries / Species:

Recreational Species and Habitat:

Juvenile/adult striped bass and other warm water species present in area including San Joaquin River and Burns Cut. Calaveras River supports small salmon run.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

STOCKTON HAS A POPULATION OF 243771

Economic Impact on Commercial Fishing and Aquaculture:

San Francisco and Stockton have a large-scale commercial fishing industry Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Economic Impact on Recreational Fishing and Marine Tourism:

Recent Cosco Busan oil spill in Nov 2007 is evidence enough to show how 50000 gals of oil can significantly affect recreational and commercial fishing. Marine Tourism might be affected.

Economic Impact on Maritime Commerce and Shipping:

Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
E/T	Laurie Briden	CA Dept of Fish & Game, Bay/Delta	(209) 955-7800	
O	Brenda Grewell Restoration Ecologis	US Dept. of Agriculture	(530) 752-6260	
T	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595	
Т	Damian Higgins	U.S. Fish & Wildlife Service	(916) 414-6548	
O	Kent Nelson	CA Dept. of Water Resources	(916) 227-7581	
O	Dab Nomellini President	Central Delta Water Agency	(209) 465-5883	
O	Operations State Water Project	CA Department of Water Resources	(916) 574-2714	

### **Characteristics and Tactical Considerations**

Primary Jursidictional Contact: CITY OF STOCKTON Marine Fire Fighting Resources: SF PIER 24: 37-47.42, 122-23.24

Approximate Tug Response Times 4 HOURS

PPOR Pre-Incident Information Summary for Port of Stockton & San Joaquin River: any site									2-Q00					
Latitu	<b>de:</b> 3	7° 57.	2' 121.3	32 Longit	tude:	121° 1	121.3183							Type:
Count	y: Sar	Joaqu	uin											
ist of Nearby Environmentally Sensitive Sites: ACP Sites: 2-010A,2-015A,2-018A,2-020A Is Containment Possible?														
C	oast F	Pilot a	and Navig	gation C	hart lı	nformat	ion							
Preva	iling W	inds	Tidal Range	Bottom	Type:	Max Wate Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter Fro Severe Stor		Approach	Pilot Requirements
W		6	3	MUD		3	2 0	)		SEASONAL	YES			<b>✓</b>
Sp	Specific Site Details													
Site	Site N	ame			Ves	sel Capaci	ties	Site	Capacities and	Facilities				
ID					Max Size		Max Swing R Oraft or Dock		es, capabilities, and	d any other issu	es or concern	ContainmentPossibliti	ies:	
00	any si	e			Deep	008 c	32		R 22 1/2 IS FIRE E					
								_	NIX; OTHER FF RE					

Site Contact/Leasee/Owner:

## **Port of Sacramento** Sacramento 2-S01 IMO - adop for vessels car refined product persistent cargo) should use the or leaving San F 2-859 Tracks for ve and above 2-860 hazardous ca 2-855 Legend Potential Places of Refuge Sensitive Sites Sacramanio SUPPLEME Consult U.S. supplemental info Nautical Miles Section 80007-5155 10 October 1, 2008

### Latitude: 38° 33.8' 121.55 **Longitude:** 121° 3

PPOR Pre-Incident Information Summary for Port of Sacramento: Sacramento US SAC 1 – 8, and CHEM

**2-S01** 

Type: Dockage

County: Yolo

**Location Description:** 

The Port of Sacramento provides five 600ft berths with 35ft of water depth. The Port is capable of handling bulk cargo. Paved open storage, transit sheds and bulk cargo warehousing may be available on-site. The site is accessible by water only by the Sacramento Deep Water Channel of the Sacramento River, is one-mile from Interstate 5 and is serviced by two transcontinental railroads.

SE through SW winds prevail, particularly during spring and summer with occas	ional winds from the NW through N.
Natural Resource Concerns and Issues for this Place / Site	
Threatened and Endangered Species (TAES):	Critical Habitat for TAES:
Lindsey Slough – Prime (F/S E/E) Delta smelt spawning area and in zone for (F/S E/E) winter-run Chinook salmon (September-June).  Cache Slough – Prime (F/S E/E) Delta smelt spawning area and in zone for (F/S E/E) winter-run Chinook salmon (September-June).  Winer Slough – (F/S T/T) Swainson's hawk, (F/S E/E) critical habitat for winter-	Lower Prospect Island Wildlife Area owned and managed by DFG.  Area sloughs are part of designated natural resource area with significant habitat values (Delta Master Recreational Plan), and DFG designated significant natural area.
run Chinook salmon, (Rare plant) Mason's lilaeopsis. Sacramento River Deep Water Ship Channel – Artificially constructed channel, no listed species. Prospect Slough and Liberty Island – Prospect Slough major (F/S E/E) Delta smelt spawning area and in zone for (F/S E/E) winter-run Chinook salmon (September-June).	
Sensitive Non-protected (Non-TAES) Species:	Critical Habitat for Non-protected (Non-TAES) Species:
SFACP2: 840A,850A,855A,859A,860A; ESI/SFB-No maps for this area.	
Subsistence-use Species:	Critical Habitat for Subsistence Species:
Essential Fish Habitat:	Historic and Cultural Resources:
Critical habitat to many migratory fish species, including high proportion of salmonid stocks for Sacramento Valley: all steel head and salmon runs, striped bass, American shad, Sacramento split-tail, white and green sturgeon. Salmon and other migratory species concentrate in the Deep Water channel during migratory periods. Prospect Slough important smolt rearing area when Yolo Bypass floods.	
Commercial Fisheries / Species:	Recreational Species and Habitat:
Miner Slough supports crayfish fishery.	
Human Health / Safety Concerns and Economic Issues for thi	s Place / Site

Economic Impact on Maritime Commerce and Shipping: Human Health and Safety:

POPULATION OF SACRAMENTO IS 1796857 Redundant piers and accommodations exist to counter problems that may

Section 8000 - 156 Sector SF October 1, 2008

PPOR Pre-Incident Information Summary for Port of Sacramento: Sacramento US SAC 1 – 8, and CHEM

**2-S01** 

Type: Dockage

Latitude: 38° 33.8' 121.55 Longitude: 121° 3 County: Yolo

Economic Impact on Commercial Fishing and Aquaculture:

APRIL 2008 HEADLINE: State of Emergency: Sacramento River Fall Run Chinook Salmon PROCLAMATION by the Governor of the State of California

Economic Impact on Recreational Fishing and Marine Tourism:

APRIL 2008 HEADLINE: State of Emergency: Sacramento River Fall Run Chinook Salmon PROCLAMATION by the Governor of the State of California WHEREAS California's salmon runs are a vital component of our great State's resources and contribute significant environmental, recreational, commercial, and economic benefits to the people; and

WHEREAS the Sacramento River Fall Run Chinook Salmon have been significantly impacted by poor ocean conditions, and other environmental factors; and

WHEREAS the Sacramento River Fall Run Chinook Salmon, traditionally a mainstay salmon population for the West Coast, have declined in abundance to a level where California's and Oregon's recreational and commercial fisheries are being provisionally closed;

arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
E/T	Laurie Briden	CA Dept of Fish & Game, Bay/Delta	(209) 955-7800	
О	Robert Clark	North Delta Water Agency	(916) 446-0197	
O	Brenda Grewell Restoration Ecologis	US Dept. of Agriculture	(530) 752-6260	
T	John Henderson FWS Biologist	US Fish & Wildlife Service, Environmental Contam	(916) 414-6595	
T	Damian Higgins	U.S. Fish & Wildlife Service	(916) 414-6548	
O	Kent Nelson	CA Dept. of Water Resources	(916) 227-7581	
O	Operations State Water Project	CA Department of Water Resources	(916) 574-2714	

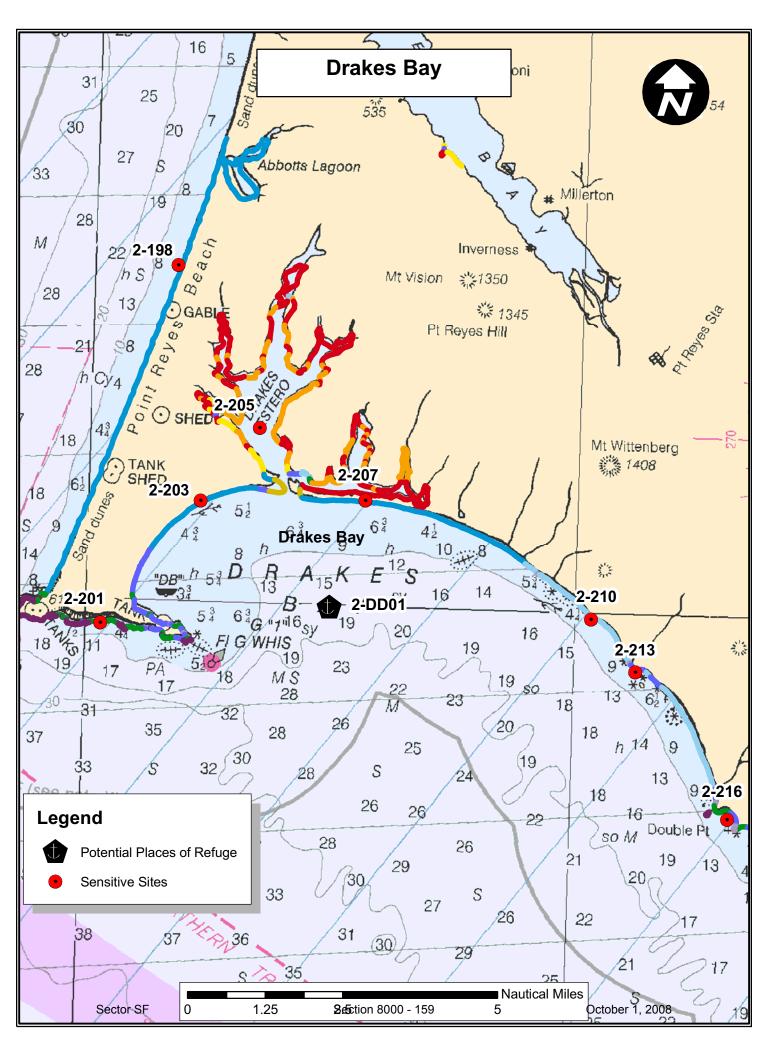
### Characteristics and Tactical Considerations

**Primary Jursidictional Contact:** Marine Fire Fighting Resources: Port of Sacramento SF PIER 24: 37-47.42, 122-23.24

Approximate Tug Response Times 4 HOURS

PPOR Pre-I		nforma 5 Longit		<b>Summ</b>	ary for	Port of	Sacramento	o: Sacrame	ento US S	AC 1 – 8, and CHE	<b>2-S</b> 0 Type	
County: Yolo											Docka	
List of Nearby Env	vironmentally S	Sensitive S	ites: A	CP Site	s: 2-840A,2	-850A,2-8	355A,2-859A,2-	860A		Is	Containment Possible?	
Coast Pilot	and Navig	ation Cl	hart In	formati	on							
Prevailing Winds	Tidal Range	Bottom	Type: M	/lax Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From		Pilot Requiremen	nts
W	6	MUD		30	0			SEASONAL	YES		<b>✓</b>	
Specific Sit	e Details											
Site Site Name			Vess	el Capacit	ies	Site	Capacities and	Facilities				-
ID			Max Size	Max M Lgth D	ax Swing Ro		es, capabilities, and	d any other issue	es or concern	ContainmentPossiblities:		
01 Sacramento CHEM	US SAC 1 –	8, and	Deep	800	30		ON RUN THROUG			Primary containment potentia local currents. Secondary co	ontainmnent is equally p	robable
						PHOE	ER 22 1/2 IS FIRE I NIX; OTHER FF RI I OAKLAND, CHEV	ESOURCES MA	Y COME	particularly considering the le other waterways can be expo	•	before

Site Contact/Leasee/Owner:



**Drakes Bay: Deep Anchorage** 

2-DD01

Type: Anchorage

Latitude: 38° 0'
County: Marin

122.92 **Longitude:** 122° 5 122.916

### **Location Description:**

Drakes Bay is approximately 8 miles wide and affords good anchorage in depths of 4 to 6 fathoms, sandy bottom, in heavy NW weather. Several lagoons back of the N shore empty into the bay through a common channel which is navigable by shallow-draft vessels with local knowledge.

Winter fronts and storms cause varying wind directions, but winds are often out of a Southerly direction. In the Spring and Summer, winds from the NW and N prevail. Both tidal and coastal currents would dominate water flows. Releases from this location may threaten maritime traffic throughout the approaches to San Francisco Bay.

Drakes Bay has one of the highest concentrations of Threatened and Endangered species in California, the largest mainland breeding concentration of harbor seals in California and the largest and most diverse mainland seabird breeding area in the region. In addition, Drakes Bay is protected as part of a National Marine Sanctuary and National Park Service lands and is the only designated Marine Wilderness south of Alaska.

Drakes Bay is also a high-value commercial and recreational fishing area. CA State Marine Protected Areas are proposed here and two already are designated. The shoreline contains archaelogical sites and paleontological resources that may be vulnerable to shoreline contamination and/or cleanup activities. Numerous ACP-designated sensitive sites are located throughout the area and may be threatened by releases from this PPOR site.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

18 TAES species common/known to be present in the area and likely to be impacted; additional seasonal and rare TAES species present as well.

Western snowy plover (F-T); Pt. Reyes Great Beach, Limantour Spit, Drakes Beach; nest spring/summer upper beach, present year-round, highest numbers in winter.

California brown pelican (S/F-T); Pt. Reyes Headland, Drakes Estero, Drakes Bay shoreline; roost and forage year-round.

Peregrine falcon (S-E); Breed at Pt. Reyes Headland and on cliffs around Drakes Bay; forage year-round.

California sea otter (S/F-E); occasional to area.

Steller sea lion (F-T); Pt. Reyes National Seashore is one of remaining haulouts; year-round.

Leatherback turtle (F-E); common seasonally.

Guadalupe fur seal (F-T); rare.

Critical Habitat for TAES:

Red-legged frog; Drakes Bay upper tributaries for steelhead trout (Home Ranch, East Schooner and Creamery Bay).

**Drakes Bay: Deep Anchorage** 

2-DD01

Type: Anchorage

Latitude: 38° 0' County: Marin 122.92 **Longitude:** 122° 5 122.9167

Marbled murrelets (F-T,S-E); major concentration in winter.

Humpback whales (F-E); forage spring to fall.

Blue whales (F-E); rare, forage spring to fall.

Central California coho salmon (S/F-E); winter and spring use.

Chinook salmon (F-E,S-T); winter and spring use.

Central California steelhead trout (F-T); winter and spring use, spawning.

Green sturgeon (F-T); use coastal bays with regularity.

California clapper rail (F-E); seasonal.

California red-legged from (F-T); fresh water species found in streams, estuaries flowing into Drakes Bay; year-round and breeding; can occur in brackish water.

2 (S/F-E) Dune plant species vulnerable to shoreline contamination/cleanup.

Sensitive Non-protected (Non-TAES) Species:

SFACP2:198A,201A,203A,205A,207A,210B,213B,216A; ESI/Central Coast-Maps 39, 40

Extremely sensitive and important area all along the Bay headlands on offshore rocks, cliffs, and pocket beaches for: seabird colonies (Brandt's/pelagic cormorants, common murre, pigeon guillemot, tufted puffin, ashy storm-petrel [proposed for listing], western gulls) and roosting and foraging area for wintering birds; largest numbers of shorebirds on North Coast (black oystercatcher, willets, colonial nesting egrets and herons); large numbers of waterbirds (white pelican, brant, osprey, western grebes, loons, scoters) and waterfowl (scaup, scoters); pinniped rookeries (northern elephant seal year-round, northern-most breeding area and pupping Dec-March, CA sea lion haul-out year-round, harbor seal highest concentration in state on mainland breeding season and molt year-round, and pupping Mar-June); other marine mammals (CA gray whale - nearshore Dec-Feb and Apr-May, killer whale, northern fur seal, minke whale, harbor porpoise). Also, black abalone (candidate for TAES listing), white sharks feed in Bay, river otters occur in Drakes Estero, sensitive dune and wetland plants as well as insects vulnerable to contamination/cleanup operations.

Critical Habitat for Non-protected (Non-TAES) Species:

Elephant seals, harbor seals, Dungeness crab, eelgrass beds, herring.

Sector SF Section 8000 - 161 October 1, 2008

**Drakes Bay: Deep Anchorage** 

2-DD01

Type: Anchorage

County: Marin

Latitude: 38° 0' 122.92 Longitude: 122° 5

Subsistence-use Species:

Essential Fish Habitat:

Drakes Bay is essential fish habitat for species in all three federal fishery management plans (FMP), the Coastal Pelagics FMP (Northern anchovy, Pacific sardine, market squid, Pacific mackeral and Jack mackeral), the Pacific Salmon FMP (which covers chinook and coho salmon as well as pink salmon) and most importantly for Drakes Bay, the Pacific Groundfish FMP. A wide variety of rockfish and flat fish utilize Drakes Bay.

Commercial Fisheries / Species:

Wide variety of rockfish, Pacific herring, halibut, sand dabs, clams, crabs, abalone, oysters.

Sensitivity of spawning habitat for Pacific herring on eelgrass or kelp (Oct-Mar). Sensitivity of Drake's Bay as nursery area for Dungeness crab (egg laying Nov-Feb; hatching Dec-March).

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Culturally sensitive area. Native American archaelogical sites; archaeological sunken vessels (San Augustin - oldest ship wrect on the west coast); paleontological resources - rich area for fossilized whales; rare paleontological coastal dunes.

Recreational Species and Habitat:

Wide variety of rockfish, Pacific herring, halibut, sand dabs, clams, crabs, abalone.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Pt. Reyes Station (Basic Medical Services) - 15 miles Petaluma (Basic and Emergency Medical Services - 40 miles

The best access to Drakes Bay is at Drakes Beach or from the Chimney Rock Road. There are no launch facilities for boats on the bay. Inverness is the closest town (approximately 10 miles) which has basic food services. Point Reyes Station has food, lodging and vehicle fuel.

Economic Impact on Commercial Fishing and Aquaculture:

Potential impacts to oyster mariculture in Drake's Estero.

Potential impacts to Dungeness crab fishery.

Potential impacts to Pacific herring fishery.

Potential impacts to salmon fishery.

Economic Impact on Recreational Fishing and Marine Tourism:

Potential impacts to recreational beach use in Pt. Reyes area. High use for surfing, fishing and sunbathing.

Economic Impact on Maritime Commerce and Shipping:

Redundant piers and accommodations exist to counter problems that may arise as a result of a Places of Refuge incident. As long as shipping channels are clear of obstructions, most commercial shipping will continue.

Economic Impact on Non-maritime Commerce:

Collateral effects due to a disturbance in intermodal transportation systems may happen if the maritime transportation system is obstructed.

Other Economic Impacts:

Airborne release of a hazardous substance or a catastrophic incident will most likely impact population desire to stay away from affected areas or any large metropolitian areas due to a fear factor.

### 2-DD01 PPOR Pre-Incident Information Summary for **Drakes Bay: Deep Anchorage** Latitude: 38° 0' 122.92 Longitude: 122° 5 Type: County: Marin Anchorage

Potential impacts to marine wildlife viewing eco-tourism.

### Stakeholder List for this Place / Site

	Name / Title	Organization	Phone	more details
E/T	Sarah Allen	US National Park Service, Pt. Reyes (NS)	(415) 464-5187	
E/T	Maria Brown	NOAA Gulf of Farallones Sanctuary	(415) 254-8747	
E/T	NPS-PRNS Dispatch	Pt. Reyes National Seashore - NPS	(415) 464-5170	
T	Sara Koenig	US National Park Service, Pt. Reyes (NS)	(415) 663-8525	
T	Thomas O. Moore	CA Dept. of Fish & Game	(707) 875-4261	
T	PRBO Main Office	Pt. Reyes Bird Observatory	(415) 868-1221	
T	Bill Shook Chief Nat. Resources	US National Park Service, Pt. Reyes (NS)	(415) 464-5188	
E/T	Colin Smith Chief Ranger	Point Reyes National Seashore	(415) 464-5175	
T/C	Gordon White Chief Cult.Resources	Point Reyes National Seashore - NPS	(415) 464-5127	

### **Characteristics and Tactical Considerations**

Primary Jursidictional Contact:	Gulf of the Farallones National Marine	M
	Sanctuary	

Marine Fire Fighting Resources:

Bodega Bay OR SF PIER 24: 37-42.42, 122-23.24

Approximate Tug Response Times 4 HOURS FROM SF PIER 24

List of Nearby Environmentally Sensitive Sites: SFACP 2: 198A, 201A, 203A, 205A, 207A, 210B, 213B, 216A (Pt. Reyes Great Beach sou | Is Containment Possible?

### **Coast Pilot and Navigation Chart Information**

Prevailing Winds	Tidal	Bottom Type:	Max Water		Currents	Sea Conditions	Fog	Shelter From	Navigational Approach	Pilot
	Range		Depth	Depths				Severe Storms		Requirements
NW(Apr-Oct)	6	sandy botto	100	0	MINIMA		SEASONAL	YES; NW stor	SOUTH	

### Specific Site Details

٦,	occinio Citto Dotanio									
Site ID	Site Name	Vesse	el Capa	cities		Site Capacities and Facilities				
		Max Size	Max Lgth		Swing Room or Dock Face	, , , , ,	ContainmentPossiblities:			
01	Deep Anchorage	Deep	1500	75	6076	Heavy fog periodically during summer months; SWING ROOM OR DOCK FACE: 1 NAUTICAL MILE	The anchorages within this place have good primary containment potential since there are few significant currents exceeding 0.7 knts. However, the local topography minimize			
						SF PIER 22 1/2 IS HOME OF FIRE BOAT GUARDIAN AND PHOENIX; OTHER FIREFIGHTING RESOURCES COME FROM FOSS/CHEVRON/OAKLAND AND RICHMOND.	the potential for secondary confinement of oil escaping			
Site C	Contact/Leasee/Owner:	National Par	k Ser	vice.	U.S.Fish & V	Vildlife Service				

### 8250 ACP 3 – Central Coast Area Committee PPOR

### 8251 Pre-Incident Summary Background

### 8251.1 Potential Places of Refuge Subcommittee

The Central Coast PPOR subcommittee formally met in June 2007 to ascertain and identify PPOR sites in accordance with references (a) and (b) within the Central Coast AOR. The subcommittee identified 35 Central Coast PPOR sites to be included in the California Statewide PPOR Database. These 35 sites were chosen by a subcommittee consisting of representatives from various Central Coast Area Committee members, including pilots, natural resource agencies, and port authorities. In July and August of 2008, the subcommittee identified six deep draft sites within the ACP 3 AOR and provided detailed physical, navigational, health and human safety, economic and natural resource information on each site. All sites identified within the Central Coast AOR were selected solely based on their capability to accommodate a deep draft vessel. This PPOR effort did not evaluate the ability of a vessel to safely transit to a particular site, nor was the potential environmental impact used as a basis for site selection. Instead, PPOR sites within this AOR addressed the high risk vessels and potential oil spill scenarios, specifically deep draft vessels. PPOR sites were determined solely based on suitability to house a deep draft vessel. All other operational considerations must be taken into account when determining where to place a vessel in peril. Currently, only the six sites identified in this section will be deemed operationally viable options for a PPOR. These six PPOR sites are strategically located throughout the Central Coast area which account for "Place of Refuge" incidents that might result in the release of oil within the Central Coast AOR. If the need arises, a detailed assessment of the remaining 29 Central Coast sites may be conducted at a future date for consideration and inclusion in the list of PPOR sites pre-identified in this section of the ACP. Primary Participants included: U.S. Coast Guard Sector San Francisco's Planning Department, Francisco Bar Pilots, California Department of Fish and Game, Office of Spill Prevention and Response (CDFG-OSPR), California Coastal Commission, and Monterey Bay National Marine Sanctuary (NOAA). Representatives from these agencies were involved with providing physical, navigational, health and human safety, natural resources, and economic information for the designated six deep draft PPOR for the Central Coast AOR.

Potential natural resource impacts for the six PPOR sites were analyzed by the committee using two natural resource information sources for shorelines: Central Coast ACP sensitive site and resource descriptions (Section 9800); and Environmental Sensitivity Index (ESI) Maps developed by NOAA and CDFG-OSPR which show environmental sensitivity of shorelines and species to oiling. The NOAA TAP II model was not utilized for assessing impacts to natural resources within the PPOR effort as the model does not address sites within the Central Coast AOR.

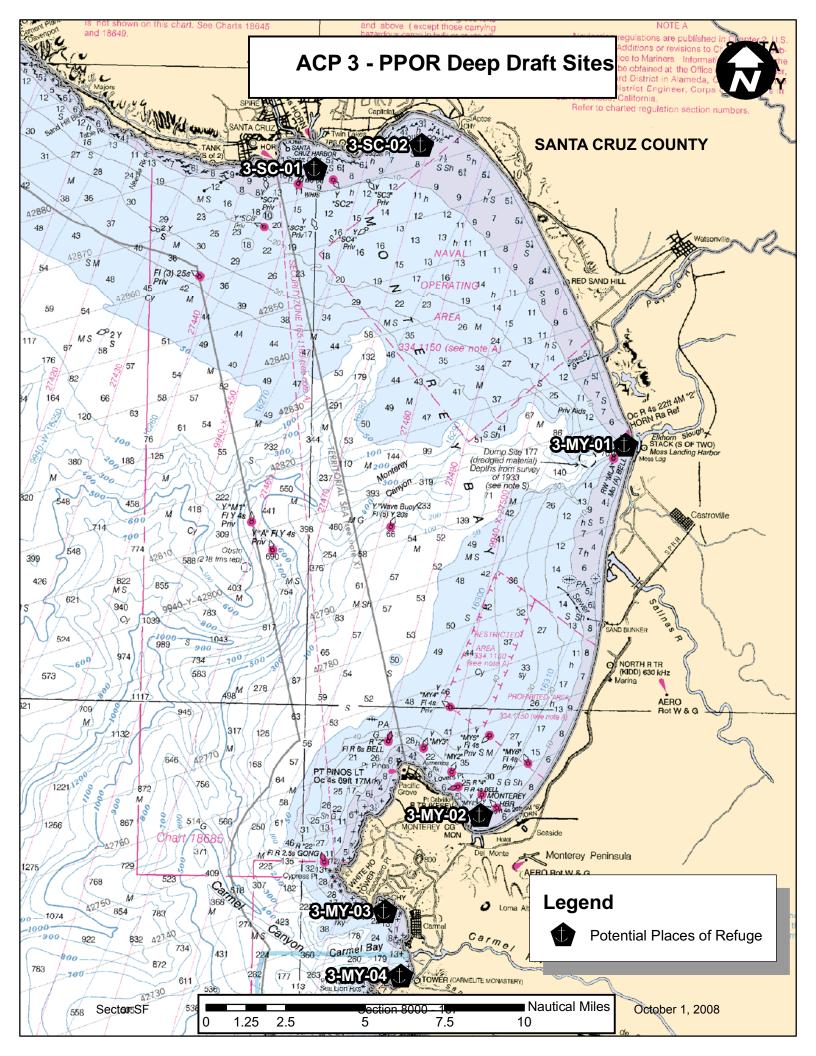
Geographic Information Systems (GIS) maps were generated by the CDFG-OSPR GIS Unit for each of the listed PPOR areas. Identification and assessment of appropriate PPOR sites within the Central Coast area is ongoing and will continue to be refined.

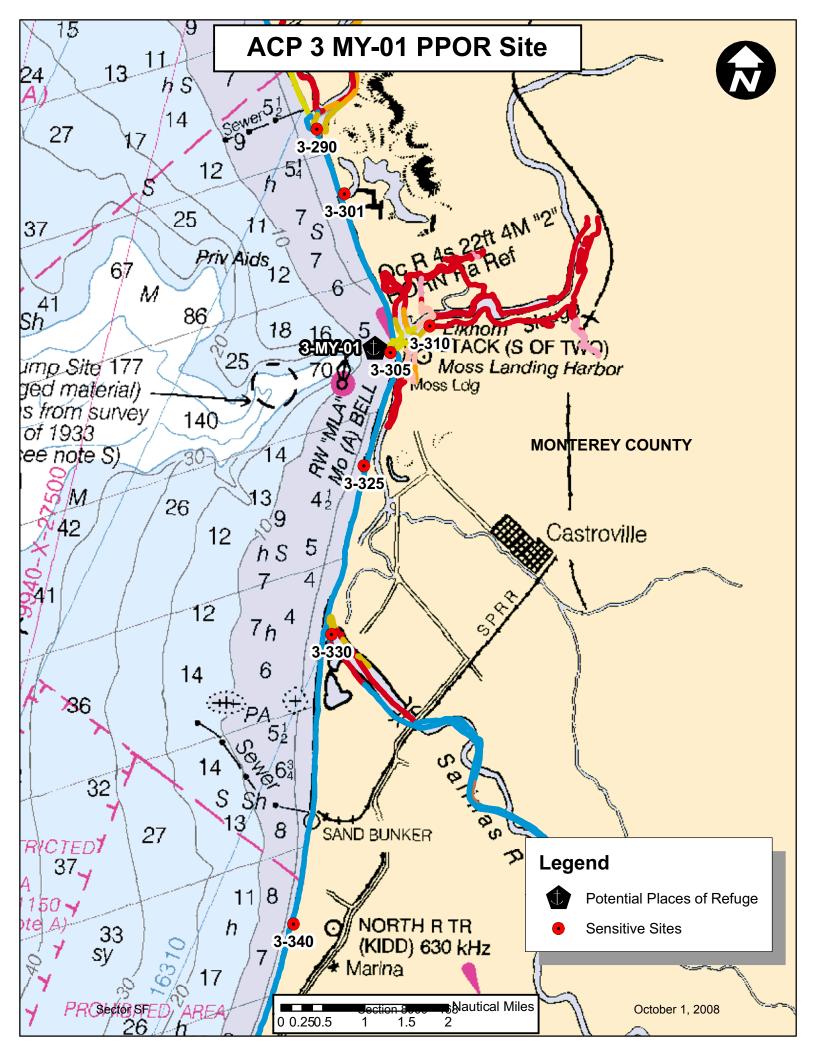
### 8252 Potential Places of Refuge Site Index

					Deg/Min/Sec
Site #	Place Name	Site Name	Co.	N	W
3-MY01	MY01	Moss Landing	MO	36 48 40	-121 47 65
3-MY02	MY02	Monterey Harbor Offshore	MO	36 36 37	-121 53 06
		Anchorage			
3-MY03	MY03	Stillwater	MO	36 33 58	-121 56 71
3-MY04	MY04	Carmel Canyon	MO	36 31 57	-121 56 04
3-SC01	SC01	Santa Cruz Whistle Buoy	SC	36 56 89	-122 00 04
3-SC02	SC02	Soquel Cove	SC	36 57 70	-121 55 89

### 8253 Potential Places of Refuge Chart/Pre-Incident Summary Sheets

This section contains Central Coast Places of Refuge Charts and Pre-Incident Summary Sheets.





36.8066 **Longitude:** 121° 47.65

Monterey County: Moss Landing

3-MY-01

Type: Anchorage

Latitude: 36° 48.40'
County: Monterey

### **Location Description:**

Undesignated anchorage off Moss Landing Harbor has charted depths to approximately 420+ feet (MLLW). Area is relatively unprotected and provides limited protection from severe storms.

Prevailing winds NW, with currents generally weak and variable.

This area is part of the Monterey Bay National Marine Sanctuary and is known for its high biodiversity and productivity for many shore and ocean based resources. Populations include threatened and endangered species including Brown Pelicans, Snowy plover, Xantus murrelet, Marbled Murrelet, Steller sea lion, Tidewater goby, Steelhead, and Southern sea otters. Numerous ACP-designated sensitive sites are located throughout the area and may be threatened by releases from this PPOR.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

Brown Pelicans (F/S-E), Snowy plover (F-T), Xantus murrelet (offshore F-T), Marbled Murrelet (offshore F-T) and Steller sea lion (FT), Tidewater goby (F-E), Steelhead (F-T), Southern sea otters (F-E), and various FE whale species (blue/fin/humback).

Sensitive Non-protected (Non-TAES) Species:

More than 400 species of invertebrates, 80 species of fish and 200 species of birds have been identified in Elkhorn Slough (just inside Moss Landing).

Subsistence-use Species:

Essential Fish Habitat:

The channels and tidal creeks of the slough are nurseries for many species of fish. A large ocean EFH zone exists immediately to the west of Moss Landing.

Commercial Fisheries / Species:

The channels and tidal creeks of the slough are nurseries for many commercial species of fish. Adjacent ocean waters support market squid, groundfish, crab, rockfish, salmon, anchovy, and sardines.

Critical Habitat for TAES:

Extensive pickleweed marshes and fragile dune systems provide critical habitat for numerous threatened and endangered species. Within California, these broad salt marshes are second in size only to San Francisco Bay.

Critical Habitat for Non-protected (Non-TAES) Species:

The channels and tidal creeks of the slough are nurseries for many species of fish. The slough is on the Pacific Flyway, providing an important feeding and resting ground for many types of migrating waterfowl and shorebirds. Fish nursery areas especially important for several species of skates, rays and flatfish.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Recreational Species and Habitat:

The channels and tidal creeks of the slough are nurseries for many recreational species of fish. Adjacent ocean waters support rockfish, groundfish, and salmon.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

Economic Impact on Maritime Commerce and Shipping:

Moss Landing Harbor is a significant historical coastal community in Monterey Bay where a major regional transport artery (Hwy 1) crosses the harbor channel. Resident population of ~300 and working population of several

This area has minor influence on maritime commerce and shipping.

Sector SF Section 8000 - 169 October 1, 2008

**Monterey County: Moss Landing** 

3-MY-01 Type:

Latitude: 36° 48.40' County: Monterey

36.8066 Longitude: 121° 47.65

121.7942

Anchorage

thousand. Anything impacting the major power plant located adjacent to the harbor could affect human health and safety.

Economic Impact on Commercial Fishing and Aquaculture:

This harbor shelters the largest number of commercial fishing vessels in Monterey Bay as well as fish processing services. An environmental emergency here would have significant impacts on the commercial fishing fleet, particularly if harbor access were restricted.

Economic Impact on Recreational Fishing and Marine Tourism:

These waters are part of the Monterey Bay National Marine Sanctuary (MBNMS). The MBNMS is an international tourist attraction and supports a high level of marine tourism. State Park recreational beaches border the harbor to the north and south, and wildlife tours are staged from the harbor. The majority of the beaches from Santa Cruz to Monterey are city, county, or state park beaches that support marine tourism. Whale watching tours, Elkhorn Slough tours, and kayak rentals all work out of this harbor. Kirby Park (in Elkhorn Slough) is also an important launch site for small boats using the slough.

Economic Impact on Non-maritime Commerce:

The Moss Landing power plant produces the largest electrical output of any conventional power plant in California. Water intake for Duke Energy plant in Moss Landing Harbor.

Other Economic Impacts:

Moss Landing Harbor is home to two major marine research organizations and the largest ocean vessels home ported in Monterev Bav.

### Stakeholder List for this Place / Site

Name / Title Organization Phone more details

### **Characteristics and Tactical Considerations**

**Primary Jursidictional Contact:** Moss Landing Harbor District Marine Fire Fighting Resources: Monterey Harbor (fire boat and CG 47' boat) Approximate Tug Response Time

List of Nearby Environmentally Sensitive Sites: 3-301, 3-305, 3-310, 3-325; Also see ESI Maps 26.

Is Containment Possible?

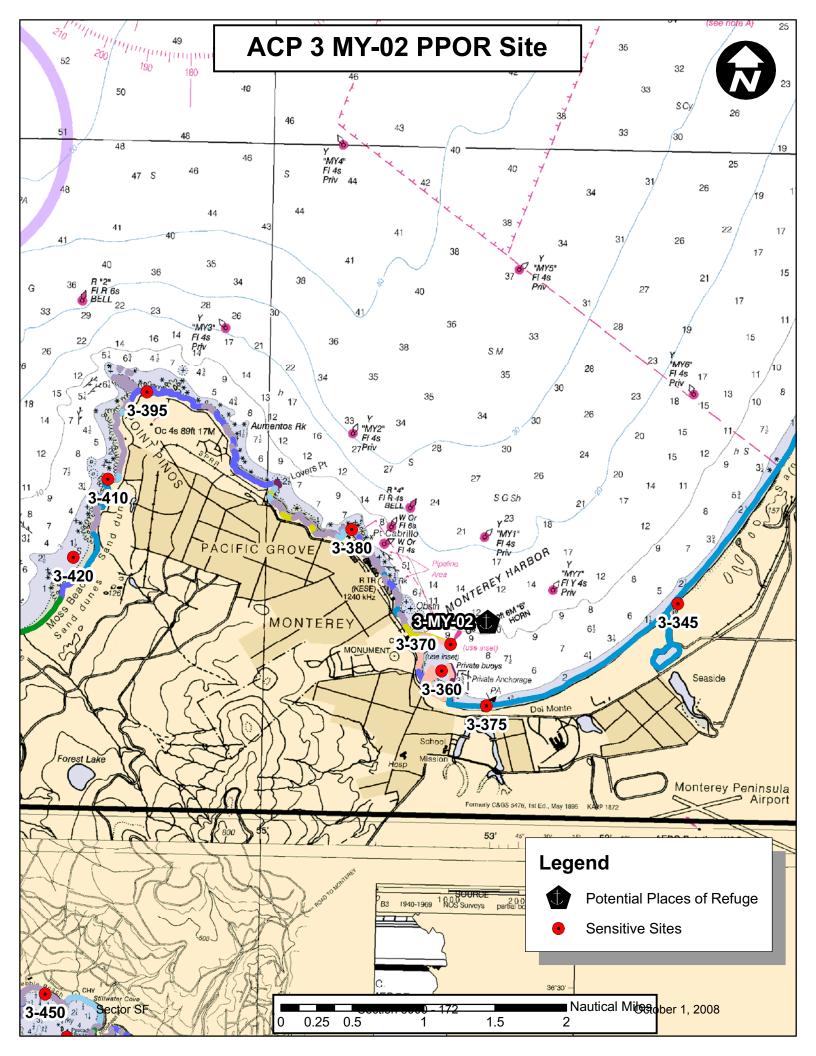
### **Coast Pilot and Navigation Chart Information**

Prevailing Winds	Tidal Range	Bottom Type:	Max Water Depth	Min Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
NW	3.6	Sand	420	30	Strong d		Yes	MINIMUM	West	<b>✓</b>

### **Specific Site Details**

Site	Site Name	Vessel Capacities				Site Capacities and Facilities	
ID		Max	Mini	Max	Swing Room	Facilities, capabilities, and any other issues or concern	ContainmentPossiblities:
		Size	Size	Draft	or Dock Face		
	Moss Landing	Deep	1000	48	1000	The currents within Moss Landing are exceptionally	0.1.1
	Sector SF					Section 8000 - 170	October 1, 2008

	Information Summary for 166 Longitude: 121° 47.65 121.7942	Monterey County: Moss Landing	<b>3-MY-01</b> Type: Anchorage
ocumy. Montoloy		strong due to the opening of Elkhorn Slough.	Allohorage
		The anchorage off Moss Landing Harbor is unprotected but the holding ground is good for larger vessels in fair weather.	
		An offshore deep draft vessel mooring and fueling facility is 0.8 nautical miles NW from Moss Landing Harbor Entrance.	
Site Contact/Leasee/Owner:	Monterey Bay National Marine	Sanctuary	



### Monterey County: Monterey Harbor Offshore Anchorage

3-MY-02

Type: Anchorage

County: Monterey

Latitude: 36° 36.67'

36.6112 **Longitude**: 121° 53.06 121.8843

### **Location Description:**

Undesignated and designated anchorages off Monterey Harbor have charted depths to approximately 120+ feet (MLLW). Area is relatively unprotected and provides limited protection from severe storms.

Prevailing winds NW, with currents generally weak and variable.

This area is part of the Monterey Bay National Marine Sanctuary and is known for its high biodiversity and productivity for many shore and ocean based resources. Populations include threatened and engangered species including Brown pelican, Southern sea otter, Steller sea lion, Steelhead, xantus' murrelet, and Western snowy plover. Numerous ACP-designated sensitive sites are located throughout the area and may be threatened by releases from this PPOR.

### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

Brown pelican (FPD, SE), Southern sea otter (FT), Steller sea lion (FT), Steelhead (FT), xantus' murrelet (ST), Western snowy plover (FT), various FE whale species (blue/fin/humback).

Sensitive Non-protected (Non-TAES) Species:

Many seabirds & marine mammals in the area.

Subsistence-use Species:

Essential Fish Habitat:

Much of the area is disgnated as EFH. Also, local kelp forests & lagoon habitats serve as critical nursery & adult habitat for many species.

Commercial Fisheries / Species:

Crab, rockfish, groundfish, market squid, salmon, anchovy, and sardines all in area. Consider sea food tainting issues.

Critical Habitat for TAES:

Kelp forests, water column habitats. Shoreline and water column critical supporting habitat for all species listed under TAES species list. Area is within the Monterey Bay National Marine Sanctuary.

Critical Habitat for Non-protected (Non-TAES) Species:

This area is part of the Monterey Bay National Marine Sanctuary and is known for its high biodiversity and productivity for many shore and ocean based resources.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Monterey is one the most important historical communities in California and served as its seat of government through the Spanish, Mexican, and early American periods. The community has extensive historical and cultural upland and submerged resources.

Recreational Species and Habitat:

Salmon, rockfish, groundfish all in area. Consider sea food tainting issues.

### Human Health / Safety Concerns and Economic Issues for this Place / Site

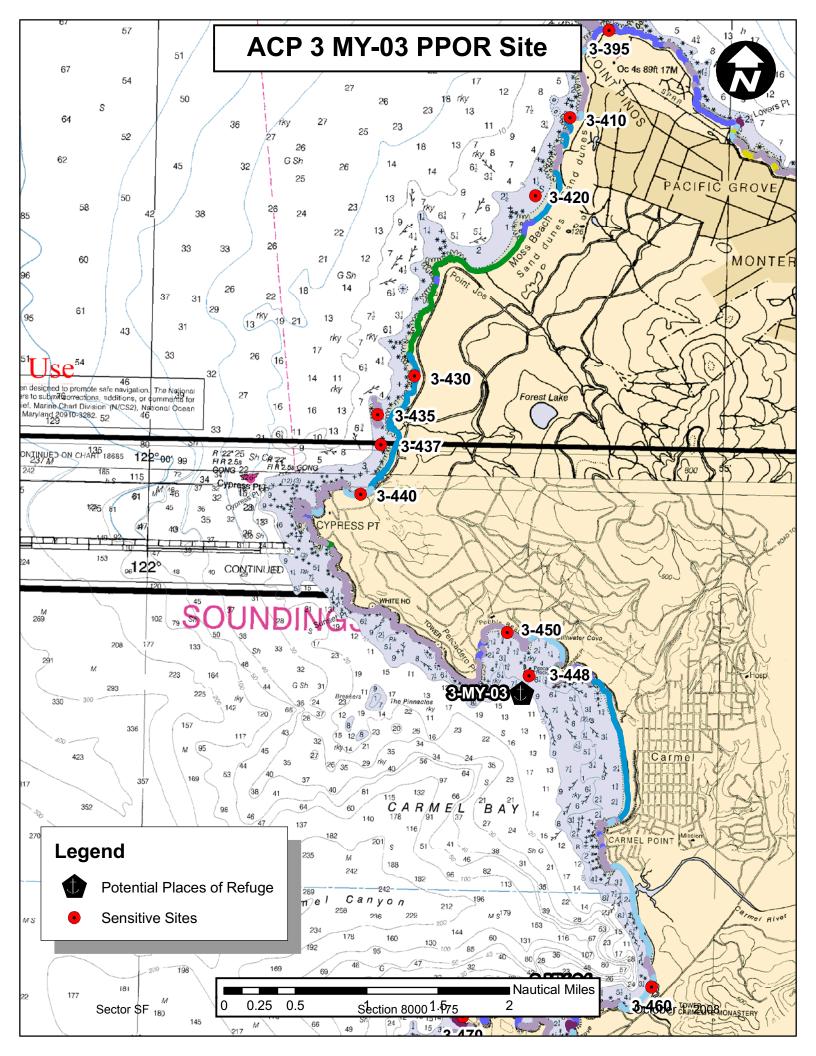
Human Health and Safety:

Largest coastal population center in Monterey Bay with approximately 100,000 residents plus an additional 60,000 potential tourists during peak tourism season. Prevailing NW winds tend to blow across Monterey Harbor anchorage and into town.

Economic Impact on Maritime Commerce and Shipping:

This area has minor influence on maritime commerce and shipping. The harbor is home to the only USCG station and cutter between San Francisco and Morro Bay, and any negative impact to the USCG mission at Monterey could significantly affect maritime commerce in the area.

DDOD Dro Incident Information Cummers for Mentercy Cour	untur Montorov Horbor Offo	hara Anaharaga	3-MY-02
PPOR Pre-Incident Information Summary for Latitude: 36° 36.67' 36.6112 Longitude: 121° 53.06 121.8843	inty: Monterey Harbor Offs	nore Anchorage	<b>3-IVI Y -UZ</b> Type:
County: Monterey			Anchorage
Economic Impact on Commercial Fishing and Aquaculture:	Economic Impact on Non-maritime Co	ommerce:	
A longstanding abalone aquaculture facility operates beneath Wharf II	]		
(commercial wharf) immediately adjacent to the Monterey Harbor anchorage.			
An environmental emergency at the harbor could impact 10-20 commercial fishing boats in the harbor, particularly if harbor access were limited.			
	Other Feenemia Impacts:		
Economic Impact on Recreational Fishing and Marine Tourism:  These waters are part of the Monterey Bay National Marine Sanctuary	Other Economic Impacts:  The Monterey Bay Aquarium i	s one of the ton 5 aguaria i	n the United States
(MBNMS). The MBNMS is an international tourist attraction and supports a	and draws its raw seawater from		
high level of marine tourism. Many sport fishing, dive boat charters, marine	Monterey Harbor anchorage.	A small desalination plant	is located on Cannery
wildlife tours, pier fishing and kayak tours are based in Monterey Harbor. The	Row in Monterey and draws ra	aw seawater to service a ho	otel/retail complex.
majority of the beaches from Monterey to Santa Cruz are city, county, or state park beaches that support marine tourism.			
Stakeholder List for this Place / Site			
	Phone		
Name / Title Organization	Filone	more details	
Name / Little Organization	Filone	more details	
Name / Little Organization	Filone	more details	
Name / Little Organization	Filone	more details	
	Filone	more details	
Characteristics and Tactical Considerations			7' boat)
Characteristics and Tactical Considerations Primary Jursidictional Contact: Montery Bay National Marine Sanctuary Marine		more details Harbor (fire boat and CG 4	7' boat)
Characteristics and Tactical Considerations Primary Jursidictional Contact: Montery Bay National Marine Sanctuary  Approximate Tug Response Time	ne Fire Fighting Resources: Monterey	Harbor (fire boat and CG 4	·
Characteristics and Tactical Considerations  Primary Jursidictional Contact: Montery Bay National Marine Sanctuary Marine  Approximate Tug Response Time  List of Nearby Environmentally Sensitive Sites: Numerous sites in area; closest are: 3-3	ne Fire Fighting Resources: Monterey	Harbor (fire boat and CG 4	·
Characteristics and Tactical Considerations  Primary Jursidictional Contact: Montery Bay National Marine Sanctuary Marine  Approximate Tug Response Time  List of Nearby Environmentally Sensitive Sites: Numerous sites in area; closest are: 3-3  Coast Pilot and Navigation Chart Information	ne Fire Fighting Resources: Monterey 345, 3-360, 3-370, 3-375, 3-380, 3	Harbor (fire boat and CG 4	·
Characteristics and Tactical Considerations  Primary Jursidictional Contact: Montery Bay National Marine Sanctuary Marine  Approximate Tug Response Time  List of Nearby Environmentally Sensitive Sites: Numerous sites in area; closest are: 3-3  Coast Pilot and Navigation Chart Information  Prevailing Winds Tidal Range Bottom Type: Max Water Depth Depths Sea Conditions	ne Fire Fighting Resources: Monterey  345, 3-360, 3-370, 3-375, 3-380, 3  nditions Fog Shelter From Severe Storms	Harbor (fire boat and CG 4 3-395; Also see ES Is Contai	nment Possible?
Characteristics and Tactical Considerations  Primary Jursidictional Contact: Montery Bay National Marine Sanctuary Marine  Approximate Tug Response Time  List of Nearby Environmentally Sensitive Sites: Numerous sites in area; closest are: 3-3  Coast Pilot and Navigation Chart Information  Prevailing Winds Tidal Bottom Type: Max Water Min Water Currents Sea Cond	ne Fire Fighting Resources: Monterey -345, 3-360, 3-370, 3-375, 3-380, 3-380, 3	Harbor (fire boat and CG 4 3-395; Also see ES Is Contai	nment Possible?
Characteristics and Tactical Considerations  Primary Jursidictional Contact: Montery Bay National Marine Sanctuary Marine  Approximate Tug Response Time  List of Nearby Environmentally Sensitive Sites: Numerous sites in area; closest are: 3-3  Coast Pilot and Navigation Chart Information  Prevailing Winds Tidal Range Bottom Type: Max Water Depth Depths Sea Conditions	ne Fire Fighting Resources: Monterey  345, 3-360, 3-370, 3-375, 3-380, 3  nditions Fog Shelter From Severe Storms	Harbor (fire boat and CG 4 3-395; Also see ES Is Contai	nment Possible?
Characteristics and Tactical Considerations  Primary Jursidictional Contact: Montery Bay National Marine Sanctuary Marine  Approximate Tug Response Time  List of Nearby Environmentally Sensitive Sites: Numerous sites in area; closest are: 3-3  Coast Pilot and Navigation Chart Information  Prevailing Winds Tidal Range Bottom Type: Max Water Depth Depths  NW Mean: 3.6 Sand 102 36 Strong  Specific Site Details  Site Site Name Vessel Capacities	ne Fire Fighting Resources: Monterey  -345, 3-360, 3-370, 3-375, 3-380, 3  nditions Fog Shelter From Severe Storms Yes Minimum	Harbor (fire boat and CG 4  3-395; Also see ES Is Contai  Navigational Approach	nment Possible?
Characteristics and Tactical Considerations  Primary Jursidictional Contact: Montery Bay National Marine Sanctuary Marine  Approximate Tug Response Time  List of Nearby Environmentally Sensitive Sites: Numerous sites in area; closest are: 3-3  Coast Pilot and Navigation Chart Information  Prevailing Winds Tidal Range Bottom Type: Max Water Depth Depths  NW Mean: 3.6 Sand 102 36 Strong  Specific Site Details  Site Site Name Vessel Capacities Site Capacities Max Mini Max Swing Room Facilities, capability	ne Fire Fighting Resources: Monterey  345, 3-360, 3-370, 3-375, 3-380, 3  nditions Fog Shelter From Severe Storms Yes Minimum	Harbor (fire boat and CG 4 3-395; Also see ES Is Contai	nment Possible?
Characteristics and Tactical Considerations  Primary Jursidictional Contact: Montery Bay National Marine Sanctuary Marine  Approximate Tug Response Time  List of Nearby Environmentally Sensitive Sites: Numerous sites in area; closest are: 3-3  Coast Pilot and Navigation Chart Information  Prevailing Winds Tidal Range Bottom Type: Max Water Depth Depths  NW Mean: 3.6 Sand 102 36 Strong  Specific Site Details  Site Site Name Vessel Capacities	ne Fire Fighting Resources: Monterey  -345, 3-360, 3-370, 3-375, 3-380, 3  nditions Fog Shelter From Severe Storms Yes Minimum	Harbor (fire boat and CG 4  3-395; Also see ES Is Contai  Navigational Approach	nment Possible?



## PPOR Pre-Incident Information Summary for Latitude: 36° 33.58' 36.5596 Longitude: 121° 56.71 121.9452

121.9452

**Monterey County: Stillwater** 

3-MY-03

Type: Anchorage

October 1, 2008

Latitude: 36° 33.58'
County: Monterey

### **Location Description:**

Undesignated anchorage off coast of Carmel has charted depths to approximately 70 feet (MLLW). Area is relatively unprotected and provides limited protection from severe storms.

Prevailing winds NW, with currents generally weak and variable.

These waters are part of the Monterey Bay National Marine Sanctuary

Sector SF

This area is part of the Monterey Bay National Marine Sanctuary and the Carmel Bay State Marine Conservation Area. Area is known for its high biodiversity and productivity for many shore and ocean based resources. Populations include threatened and endangered species (Brown pelican and Southern sea otter). Numerous ACP-designated sensitive sites are located throughout the area and may be threatened by releases from this PPOR.

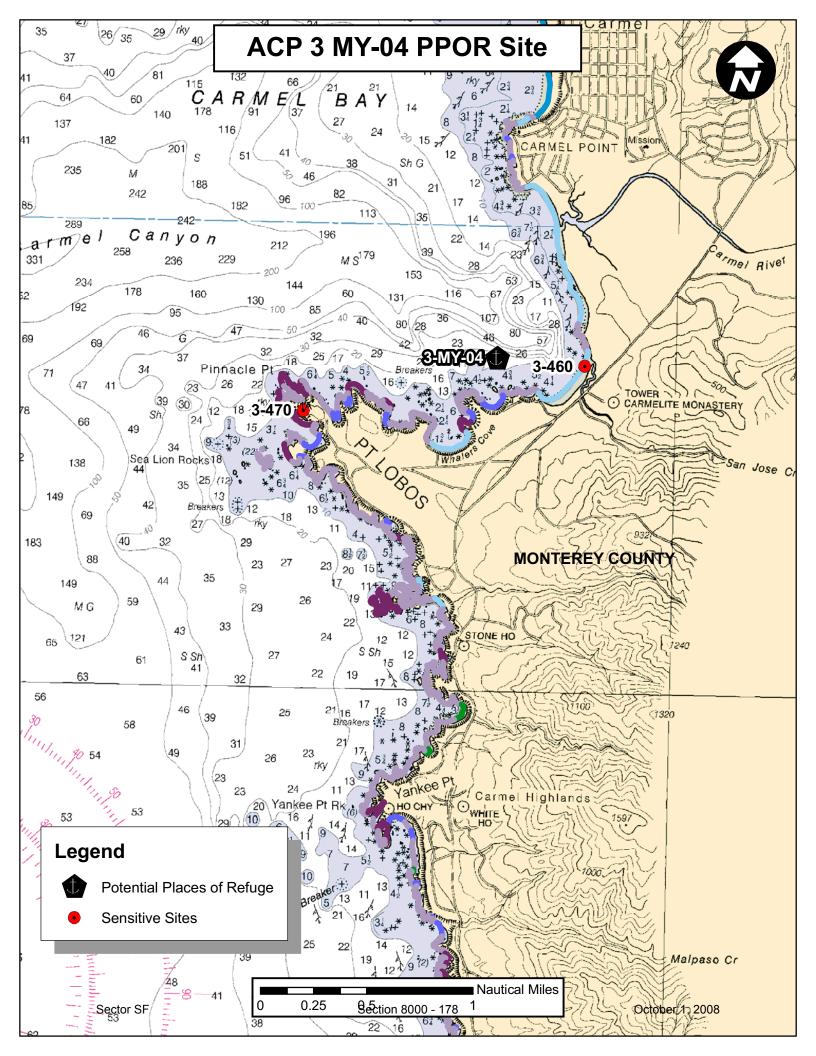
Threatened and Endangered Species (TAES):	Critical Habitat for TAES:
Brown pelican (FPD, SE) and Southern sea otter (FT).	Kelp forests, water column habitats. Shoreline and water column critical supporting habitat for all species listed under TAES species list. Area is within the Monterey Bay National Marine Sanctuary.
Sensitive Non-protected (Non-TAES) Species:	Critical Habitat for Non-protected (Non-TAES) Species:
Many seabirds & marine mammals in the area. Area also includes important subtidal diversity.	This area is part of the Monterey Bay National Marine Sanctuary and is known for its high biodiversity and productivity for many shore and ocean based resources. Site is within the Carmel Bay State Marine Conservation Area.
Subsistence-use Species:	Critical Habitat for Subsistence Species:
Essential Fish Habitat:	Historic and Cultural Resources:
Much of the area is disgnated as EFH. Also, local kelp forest habitats serve as critical nursery & adult habitat for many species.	Point Lobos Reserve contains several historical and cultural upland and submerged sites.
Commercial Fisheries / Species:	Recreational Species and Habitat:
Crab, rockfish, groundfish, prawns, market squid, salmon, anchovy, and sardines all in area. Consider sea food tainting issues.	Salmon, rockfish, groundfish all in area. Consider sea food tainting issues.
Human Health / Safety Concerns and Economic Issues for th	is Place / Site
Human Health and Safety:	Economic Impact on Maritime Commerce and Shipping:
Pebble Beach and Carmel communities have a resident population of ~9,000 plus several thousand tourists during peak tourism season.	This area has minor influence on maritime commerce and shipping.
Economic Impact on Commercial Fishing and Aquaculture:	Economic Impact on Non-maritime Commerce:
The most prominent commercial fishery in Carmel Bay is spot prawn. Environmental impacts here could significantly impact this local fishery.	
Economic Impact on Recreational Fishing and Marine Tourism:	Other Economic Impacts:
Economic impact on Recreational Fishing and Marine Tourism.	Other Economic Impacts.

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The Carmel/Pebble Beach area is a world-wide resort destination that hosts

PP	OR Pre-I	ncident l	nformat	ion	Sumn	nary	for	Monter	ey County:	Stillwate	r		3-MY-03
	ude: 36° 33.		96 Longitue	de: 1	21° 56.7	1 12	21.9452						Type:
Joun	ty: Montere	У											Anchorage
nigh	level of m	e MBNMS is arine touris ters and ma	m. Carme	l Bay	is acce					ajor events	such as PGA tour	naments and exclusive a	uto shows.
St	takeholo	ler List fo	or this P	lace	/ Site	<b>)</b>							
	Nam	e / Title					Organia	zation			Phone	more details	
Prima	ary Jursidictio		Monter					anctuary	Marine Fire F	Fighting Resou	rces: Monterey H	larbor (fire boat and CG 4	17' boat)
Appro	oximate Tug	Response Tim	ne										
ist o	f Nearby Env	vironmentally S	Sensitive Site	es: N	umero	us site	es in ar	ea; closes	st are: 3-440, 3	-448, 3-450	), 3-460; Also see	ESI Maps 23 - 2 Is Conta	inment Possible?
C	oast Pilot	and Navig	ation Cha	art Inf	format	ion			·	·			
Preva	ailing Winds	Tidal Range	Bottom Ty	pe: M	ax Wate Depth		Water epths	Currents	Sea Conditions	Fog	Shelter From Severe Storms	Navigational Approach	Pilot Requirements
N, N	W	3.54	Sand		9	0	45	Weak an		Yes	Minimum	East	<b>✓</b>
Sı	pecific Sit	e Details											
Site	Site Name			Vesse	el Capaci	ties		Site	Capacities and	l Facilities			
ID				Max	Mini N	1ax S	Swing Ro	om Facilitie	es, capabilities, ar		sues or concern Co	ntainmentPossiblities:	
	Stillwater			Deep		45		1000					
	Ciliwatei			Dech	1000	70		.000					

Site Contact/Leasee/Owner:



# PPOR Pre-Incident Information Summary for

36.5261 Longitude: 121° 56.04 121.934

Latitude: 36° 31.57'

**Monterey County: Carmel Canyon** 

3-MY-04 Type:

Anchorage

October 1, 2008

# **Location Description:**

County: Monterey

Undesignated anchorage off coast of Carmel has charted depths to approximately 600+ feet (MLLW). Area is relatively unprotected and provides limited protection from severe storms.

Prevailing winds NW, with currents generally weak and variable.

This area is part of the Monterey Bay National Marine Sanctuary and the Carmel Bay State Marine Conservation Area. Area is known for its high biodiversity and productivity for many shore and ocean based resources. Populations include threatened and endangered species (Brown pelican and Southern sea otter). Numerous ACP-designated sensitive sites are located throughout the area and may be threatened by releases from this PPOR.

These waters are part of the Monterey Bay National Marine Sanctuary

Sector SF

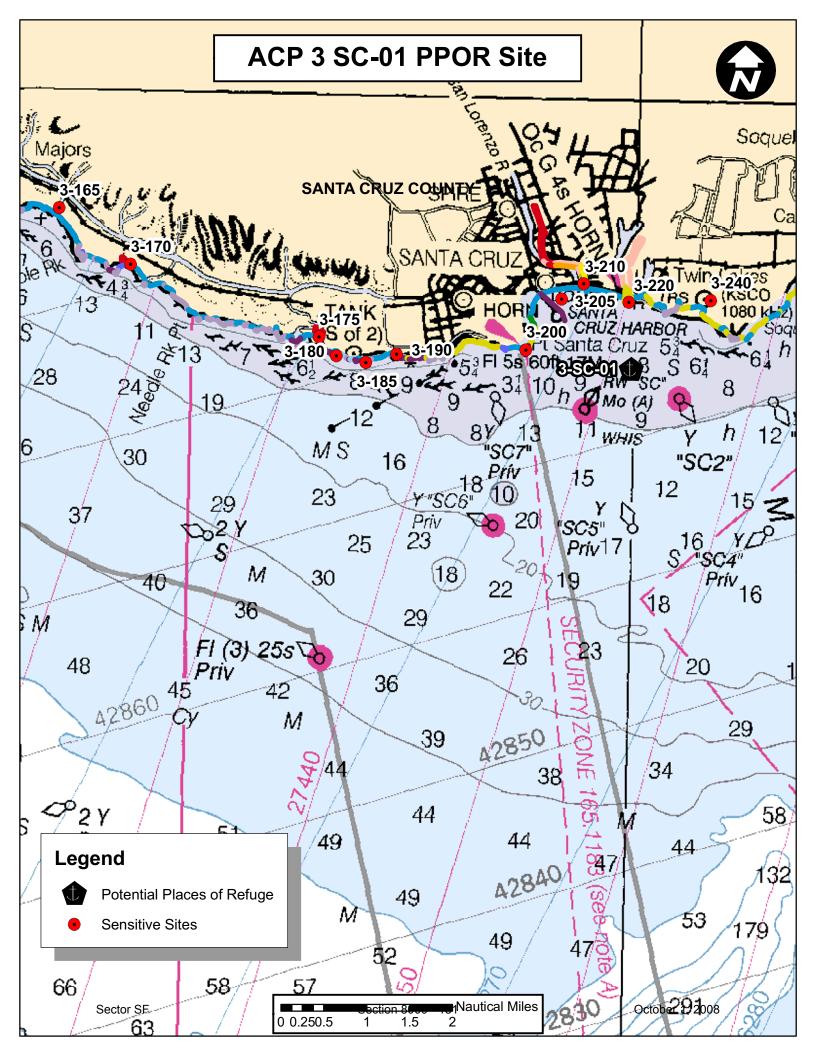
Threatened and Endangered Species (TAES):	Critical Habitat for TAES:				
Brown pelican (FPD, SE) and Southern sea otter (FT).	Kelp forests, water column habitats. Shoreline and water column critical supporting habitat for all species listed under TAES species list. Area is within the Monterey Bay National Marine Sanctuary.				
Sensitive Non-protected (Non-TAES) Species:	Critical Habitat for Non-protected (Non-TAES) Species:				
Many seabirds & marine mammals in the area. Area also includes important subtidal diversity.	This area is part of the Monterey Bay National Marine Sanctuary and is known for its high biodiversity and productivity for many shore and ocean based resources. Site is within the Carmel Bay State Marine Conservation Area.				
Subsistence-use Species:	Critical Habitat for Subsistence Species:				
Essential Fish Habitat:	Historic and Cultural Resources:				
Much of the area is disgnated as EFH. Also, local kelp forest habitats serve as critical nursery & adult habitat for many species.	Point Lobos Reserve contains several historical and cultural upland and submerged sites.				
Commercial Fisheries / Species:	Recreational Species and Habitat:				
Crab, rockfish, groundfish, prawns, market squid, salmon, anchovy, and sardines all in area. Consider sea food tainting issues.	Salmon, rockfish, groundfish all in area. Consider sea food tainting issues.				
Human Health / Safety Concerns and Economic Issues for th	is Place / Site				
Human Health and Safety:	Economic Impact on Maritime Commerce and Shipping:				
Pebble Beach and Carmel communities have a resident population of ~9,000 plus several thousand tourists during peak tourism season.	This area has minor influence on maritime commerce and shipping.				
Economic Impact on Commercial Fishing and Aquaculture:	Economic Impact on Non-maritime Commerce:				
The most prominent commercial fishery in Carmel Bay is spot prawn. Environmental impacts here could significantly impact this local fishery.					
Economic Impact on Recreational Fishing and Marine Tourism:	Other Economic Impacts:				

Section 8000 - 179

The Carmel/Pebble Beach area is a world-wide resort destination that hosts

PPOR Pre-	Incident	Informati	on Sum	mar	ry for	Monter	ey County: (	Carmel Ca	nyon		3-MY-04
Latitude: 36° 31	.57' 36.52	261 Longitud			121.934						Type:
County: Montere	ey .										Anchorage
(MBNMS). Th high level of n dive boat cha	narine touri	ism. Carmel	Bay is ac					ijor events su	ch as PGA	tournaments and exclusive a	uto shows.
Stakehol	der List f	or this P	ace / Si	te							
Nan	ne / Title				Organiz	ation			Phone	more details	
<b>Characteri</b> Primary Jursidicti	onal Contact:	Montery			<b>ions</b> Marine Sa	anctuary	Marine Fire F	ighting Resource	es: Montere	ey Harbor (fire boat and CG 4	7' boat)
Approximate Tug	Response Ti	me									
List of Nearby En	vironmentally	Sensitive Site	s: Numer	ous s	sites in are	ea; closes	st are: 3-440, 3-	448, 3-450, 3	3-460; Also	see ESI Maps 23 - 2 Is Conta	inment Possible?
Coast Pilo	t and Navi	gation Cha	rt Inform	ation							
Prevailing Winds	Tidal Range	Bottom Typ	e: Max Wa		lin Water Depths	Currents	Sea Conditions	Fog	Shelter From Severe Stor		Pilot Requirements
W 7 knots	3.5	Mud/Sand	1 2	288	42	weak an		Common Jul	Minimum		<b>✓</b>
Specific Si	te Details										
Site Site Name	!		Vessel Capa	acities		Site	Capacities and	Facilities			
ID		-	Max Mini Size Size	Max Draft	Swing Roo or Dock Fa	m Faciliti	es, capabilities, and		es or concern	ContainmentPossiblities:	
Carmel Ca	inyon		Deep 1000	42			l Canyon, a deep s	ubmarine valley,	heads in the		
		l.	- 1	1	I	SE par	t of Carmel Bay an an .2 miles from the	d has depths of			

Site Contact/Leasee/Owner:



PPOR Pre-Incident Information Summary for Santa Cruz County: Santa Cruz Whistle Buoy

3-SC-01

Anchorage

Latitude: 36° 56.89' County: Santa Cruz

Location Description:

Undesignated anchorage outside of Santa Cruz Harbor have charted depths to approximately 60 feet (MLLW). Area is relatively unprotected and provides limited protection from severe storms.

Prevailing winds W to NW, with currents generally variable and weak.

36.9481 **Longitude:** 122° 00.04

This area is part of the Monterey Bay National Marine Sanctuary and is known for its high biodiversity and productivity for many shore and ocean based resources. Populations include threatened and endangered species such as Brown pelican, Southern sea otter, marbled murrelet, and Snowy plover. Numerous ACP-designated sensitive sites are located throughout the area and may be threatened by releases from this PPOR.

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

Brown pelican (FPD, SE), Southern sea otter (FT), marbled murrelet (FT, SE), Snowy plover (FT), Stellar sea lion (FT), Tidewater goby (FE), Steelhead (FT), various FE whale species (blue/fin/humback).

Sensitive Non-protected (Non-TAES) Species:

Many seabirds & marine mammals in the area. Of special concern are common murre (Jul - Dec) & sooty shearwater (Apr - Sep).

Subsistence-use Species:

Essential Fish Habitat:

Much of the area is disgnated as EFH. Also, local kelp forests & lagoon habitats serve as critical nursery & adult habitat for many species.

Commercial Fisheries / Species:

Crab, rockfish, groundfish, prawns, market squid, salmon, anchovy, and sardines all in area. Consider sea food tainting issues.

Critical Habitat for TAES:

Kelp forests, water column habitats. Shoreline and water column critical supporting habitat for all species listed under TAES species list. Area is within the Monterey Bay National Marine Sanctuary. Designated critical habitat for snowy plover and tidewater goby in area. San Lorenzo River critical habitat for steelhead.

Critical Habitat for Non-protected (Non-TAES) Species:

This area is part of the Monterey Bay National Marine Sanctuary and is known for its high biodiversity and productivity for many shore and ocean based resources.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Historic structures exist within the area as well as various culrtural/archealogical resources. These include but are not limited to Santa Cruz Boardwalk & Pier, the Cement Ship, and various other water side structures.

Recreational Species and Habitat:

Salmon, rockfish, groundfish all in area. Consider sea food tainting issues.

# Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

55,000 people live within the city of Santa Cruz and 250,000 people live within county lines.

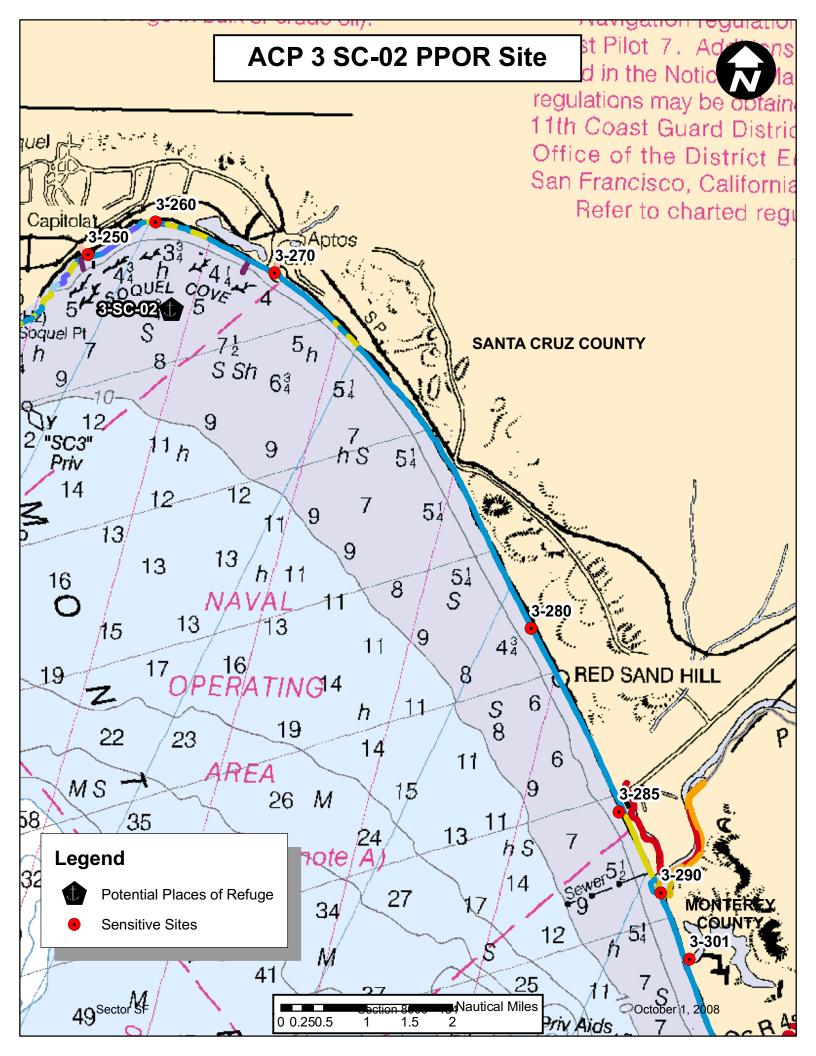
Economic Impact on Maritime Commerce and Shipping:

This area has minor influence on maritime commerce and shipping.

	OR Pre-I	ncident li 89' 36.948	nformat			ry for Sa 122.0007	nta C	Cruz C	ounty	Santa Cru	ız Whistle	Buoy		<b>3-SC-01</b> Type:
Count	y: Santa Cı	uz												Anchorage
Econo	mic Impact	on Commercia	l Fishing and	d Aqu	aculture:				Eco	nomic Impact on	Non-maritime (	Commerce:		
Santa Cruz Harbor shelters a small number of commercial fishing vessels.							Inta	ake for desali	nization plan	t at Terrace Po	oint.			
Econo	mic Impact	on Recreationa	al Fishing an	d Mai	rine Tourism:				Oth	er Economic Imp	acts:			
These waters are part of the Monterey Bay National Marine Sanctuary (MBNMS). The MBNMS is an international tourist attraction and supports a high level of marine tourism. The majority of the beaches from Santa Cruz to								The Santa Cruz Boardwalk is a major coastal attraction in the area and any environmental emergency could significantly affect that tourism enterprise.						
Mont Surfi wildli from	terey are on the ferey are of the ferey	city, county, ajor recreation perate from uz and Capi	or state ponal sport Santa Cr tola whar	ark I in thuz H	peaches the area. Fish arbor. Fish	at support me shing charters ning boat ren	arine t s and	tourism. marine						
St	akeholo	ler List fo	r this P	lace	e / Site									
	Nam	e / Title				Organizatio	n				Phone	more details		
_		stics and	Tactical	l Co	nsiderat	ions								
Prima	ry Jursidictio	onal Contact:	Monter	y Ba	y National	Marine Sanc	tuary	Mari	ne Fire Fi	ghting Resource	s: Monterey	/ Harbor (fire b	oat and CG 47	7' boat)
Appro	ximate Tug	Response Time	е											
List of	Nearby Env	vironmentally S	ensitive Site	s: N	Numerous s	sites in area;	closes	st are 3-	205 & 3	3-210. Also s	ee ESI Maps	27 - 29.	Is Contair	nment Possible?
C	oast Pilot	and Naviga	ation Cha	art In	formation	·					•		<u> </u>	
Preva	iling Winds	Tidal Range	Bottom Ty	pe: N	Max Water N	lin Water Cu Depths	irrents	Sea Co	onditions	Fog	Shelter From Severe Storm		nal Approach	Pilot Requirements
W to	NW	~ 5 ft.	Sandy		60	45 Vai	riable	NW sw	ell,4 ft.	Common Jul	Very limited	S/SE		✓
Sp	ecific Si	e Details												
Site	Site Name			Vess	el Capacities		Site	Capacit	ies and	Facilities				
ID				Max Size	Mini Max Size Draft	Swing Room or Dock Face				l any other issue	s or concern	ContainmentPoss	blities:	
	Santa Cruz	Whistle Buoy		Deep	1000 50	1000				ner as an anchor				
							possib buoy.	oly as a mo	oring loca	ation on the near	by navigation			

Site Contact/Leasee/Owner:

Santa Cruz Port District



# PPOR Pre-Incident Information Summary for Santa Cruz County: Soquel Cove

3-SC-02

Anchorage

County: Santa Cruz

36.9617 **Longitude**: 121° 55.89 121.9315 Latitude: 36° 57.70'

Location Description:

Undesignated anchorage outside of Santa Cruz Harbor have charted depths to approximately 60 feet (MLLW). Area is relatively unprotected and provides limited protection from severe storms.

Prevailing winds W to NW, with currents generally variable and weak.

This area is part of the Monterey Bay National Marine Sanctuary and is known for its high biodiversity and productivity for many shore and ocean based resources. Populations include threatened and endangered species such as Brown pelican, Southern sea otter, marbled murrelet, and Snowy plover. Numerous ACP-designated sensitive sites are located throughout the area and may be threatened by releases from this PPOR.

#### Natural Resource Concerns and Issues for this Place / Site

Threatened and Endangered Species (TAES):

Brown pelican (FPD, SE), Southern sea otter (FT), marbled murrelet (FT, SE), Snowy plover (FT), Stellar sea lion (FT), Tidewater goby (FE), Steelhead (FT), various FE whale species (blue/fin/humback).

Sensitive Non-protected (Non-TAES) Species:

Many seabirds & marine mammals in the area. Of special concern are common murre (Jul - Dec) & sooty shearwater (Apr - Sep).

Subsistence-use Species:

Essential Fish Habitat:

Much of the area is designated as EFH. Also, local kelp forests & lagoon habitats serve as critical nursery & adult habitat for many species.

Commercial Fisheries / Species:

Crab, rockfish, groundfish, prawns, market squid, salmon, anchovy, and sardines all in area. Consider sea food tainting issues.

Critical Habitat for TAES:

Kelp forests, water column habitats. Shoreline and water column critical supporting habitat for all species listed under TAES species list. Area is within the Monterey Bay National Marine Sanctuary. Designated critical habitat for snowy plover and tidewater goby in area. San Lorenzo River critical habitat for steelhead.

Critical Habitat for Non-protected (Non-TAES) Species:

This area is part of the Monterey Bay National Marine Sanctuary and is known for its high biodiversity and productivity for many shore and ocean based resources.

Critical Habitat for Subsistence Species:

Historic and Cultural Resources:

Historic structures exist within the area as well as various culrtural/archealogical resources. These include but are not limited to Santa Cruz Boardwalk & Pier, the Palo Alto (Aptos Cement Ship), and various other water side structures.

Recreational Species and Habitat:

Salmon, rockfish, groundfish all in area. Consider sea food tainting issues.

# Human Health / Safety Concerns and Economic Issues for this Place / Site

Human Health and Safety:

250,000 people live within the Santa Cruz county lines.

Economic Impact on Commercial Fishing and Aquaculture:

Economic Impact on Maritime Commerce and Shipping:

This area has minor influence on maritime commerce and shipping.

Economic Impact on Non-maritime Commerce:

Sector SF Section 8000 - 185 October 1, 2008

			Informati		<u>Sum</u>	<u>ma</u> r	y for	Santa	a Cr	uz	Coun	ty:	Soquel	Cove					3-9	SC-02
	i <b>de:</b> 36° 57. ty: Santa Cr		17 Longitud	e: 1	21° 55	.89	121.9315						-						Typ Ancl	oe: horage
Econo	omic Impact	on Recreatior	nal Fishing and	d Mari	ne Tou	rism:					(	Othe	er Economic I	mpacts:						
(MBI high Mon Surfi wildl	NMS). The level of m terey are on ng is a ma ife tours o	e MBNMS i arine touris city, county ajor recreat perate fron	the Monteres an internasm. The ma , or state pa ional sport n Santa Cru iotola wharfs	ationationational jority ark b in the iz Ha	al tou of the eache area	rist a e bea es tha a. Fis	ttraction aches fro at suppor hing cha	and su om San rt marir irters a	upport nta Cr ne tou and ma	uz t urisr arin	to m. ie									
St	akeholo	ler List fo	or this Pl	ace	/ Sit	e:														
	Nam	e / Title					Organi	zation						Phone		more details	S			
		stics and	Tactical Montery				<b>ions</b> Marine S	anctua	ary	N	farine Fire	e Fiç	ghting Resour	rces: Mo	nterey H	larbor (fire	boat a	nd CG 47'	boat)	
Appro	ximate Tug	Response Tin	ne																	
	•	•	Sensitive Sites				ites in ar	rea; clo	osest	are	3-205 8	& 3·	-210. Also	see ESI	Maps 2	7 - 29.		Is Containn	ment Possible	?
Preva	ailing Winds	Tidal Range	Bottom Typ	e: M	ax Wat		lin Water Depths	Currer	nts	Sea	Condition	ns	Fog		er From e Storms	Navigation	onal Ap	proach	Pilot Requireme	ents
W 7	knots	~ 5 ft.	Sandy			48	30	Variab	ble N	۱W ا	swell, 4	lft.	Common J	JulVery li	mited	S/SE			<b>✓</b>	
Sı	ecific Sit	e Details																		
Site   Site Name   Vessel Capacities   Site Capacities and Facilities																				
ID	Max   Mini   Max   Swing Room   Facilities, capabilities, and any other issues or concern   ContainmentPossiblities:  Size   Size   Draft   or Dock Face																			
	Soquel Cov		1	Оеер	1000	48		1000												
Site C	ontact/Leas	ee/Owner:																		

# **Stakeholders:**

# 3-MY-01

Type	Name/Title	Organization	Phone
T		Elkhorn Slough National	831-728-2822
		Estuarine Reserve (NOAA)	
T	Scott Kathey, MBNMS	Monterey Bay National Marine	831-647-4251
	Enforcement	Sanctuary (NOAA)	
	Coordinator		
T	Dispatch	CA Dept. of Parks &	916-358-1300
		Recreation	
T		CA Dept. of Fish & Game	831-649-2870
		(Moss Landing Wildlife Area)	
T		Moss Landing Harbor District	831-633-2461
T		Monterey County	831-755-5115

# 3-MY-02

Type	Name/Title	Organization	Phone
T	City Manager	City of Monterey	831-646-3760
T	City Manager	City of Pacific Grove	831-648-3106
T	City Manager	City of Seaside	831-899-6700
	City Administrator	Sand City	831-394-6700 xt. 12
	City Managere	City of Marina	831-884-1278
T	Dispatch	CA Dept. of Parks &	916-358-1300
		Recreation	
T	Scott Kathey, MBNMS	Monterey Bay National Marine	831-647-4251
	Enforcement	Sanctuary (NOAA)	
	Coordinator		
T		Monterey Bay Aquarium	831-648-4800
T		Monterey County	831-755-5115

# 3-MY-03

Type	Name/Title	Organization	Phone
T	Dispatch	CA Dept. of Parks &	916-358-1300
		Recreation	
T	Scott Kathey, MBNMS	Monterey Bay National Marine	831-647-4251
	Enforcement	Sanctuary (NOAA)	
	Coordinator		
T	City Administrator	City of Carmel	831-620-2000
T		Monterey County	831-755-5115
T	Susan Ashcraft, MPA	CA Dept. of Fish & Game	916-651-7670
	Project Supervisor	(Carmel Bay SMCA)	

# 3-MY-04

Type	Name/Title	Organization	Phone
T	Dispatch	CA Dept. of Parks &	916-358-1300
		Recreation	
T	Scott Kathey, MBNMS	Monterey Bay National Marine	831-647-4251
	Enforcement	Sanctuary (NOAA)	
	Coordinator		
T	City Administrator	City of Carmel	831-620-2000
T		Monterey County	831-755-5115
T	Susan Ashcraft, MPA	CA Dept. of Fish & Game	916-651-7670
	Project Supervisor	(Carmel Bay SMCA)	

# 3-SC-01

Type	Name/Title	Organization	Phone
T	Dispatch	CA Dept. of Parks &	916-358-1300
		Recreation	
T	Scott Kathey, MBNMS	Monterey Bay National Marine	831-647-4251
	Enforcement	Sanctuary (NOAA)	
	Coordinator		
T	City Manager	City of Santa Cruz	831-420-5010
T		Santa Cruz Port District	831-475-6161
T	Administrative Officer	Santa Cruz County	831-454-3420

# 3-SC-02

0 00	<u> </u>		
Type	Name/Title	Organization	Phone
T	Scott Kathey, MBNMS	Monterey Bay National Marine	831-647-4251
	Enforcement	Sanctuary (NOAA)	
	Coordinator		
T	Administrative Officer	Santa Cruz County	831-454-3420
T	Dispatch	CA Dept. of Parks &	916-358-1300
		Recreation	
T	City Manager	City of Capitola	831-475-7300

# 8300 Salvage and Lightering

Refer to Coast Guard Sector San Francisco Salvage and Lightering Plan. This document is published as a stand alone document under a separate cover.

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